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A man— his hobby— and a very personal cigarette

HERE'S a man of originality—Sir Geoffrey Cory-Wright, Bart., lifetime amateur photographer who has recently made it his profession. You've probably admired the originality of his work in well-known magazines.

Sir Geoffrey is a noted collector of rare and beautiful objects. Here, in his lovely Hertfordshire home, is his collection of rare glass paper-weights, some over 100 years old.

Knowing his individual turn of mind, you won't be surprised when he offers you his very personal choice in cigarettes. Larger than usual, oval in shape though Virginian-flavoured, and rather fuller to the taste: "Passing Clouds"—the cigarettes in that unmistakable pink box.

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Sir Geoffrey Cory-Wright is always happy to talk about his collection of glass paper-weights. "This is the mille fiori design," he says. "The hardest to track down have a single flower or butterfly. Once, you could buy them for a few shillings; now, they can sell for £200!" As he talks you can sense the firm streak of originality in his character. Offer him a cigarette, for instance, and he'll say "rather smoke my own, thanks." Then he'll offer you "Passing Clouds."

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Bermuda

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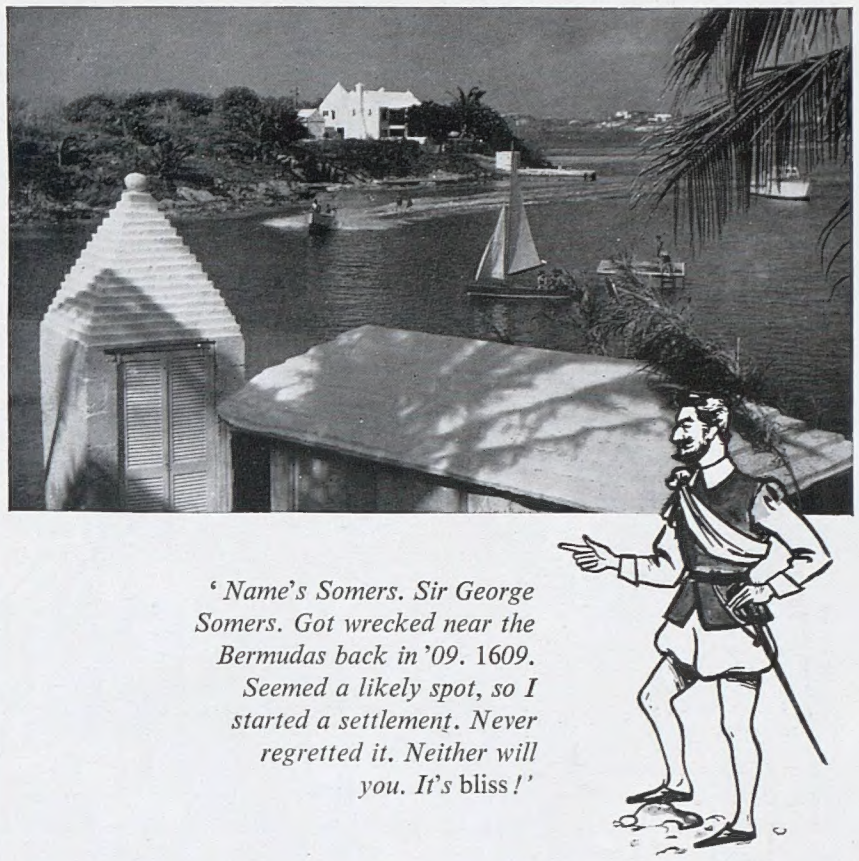

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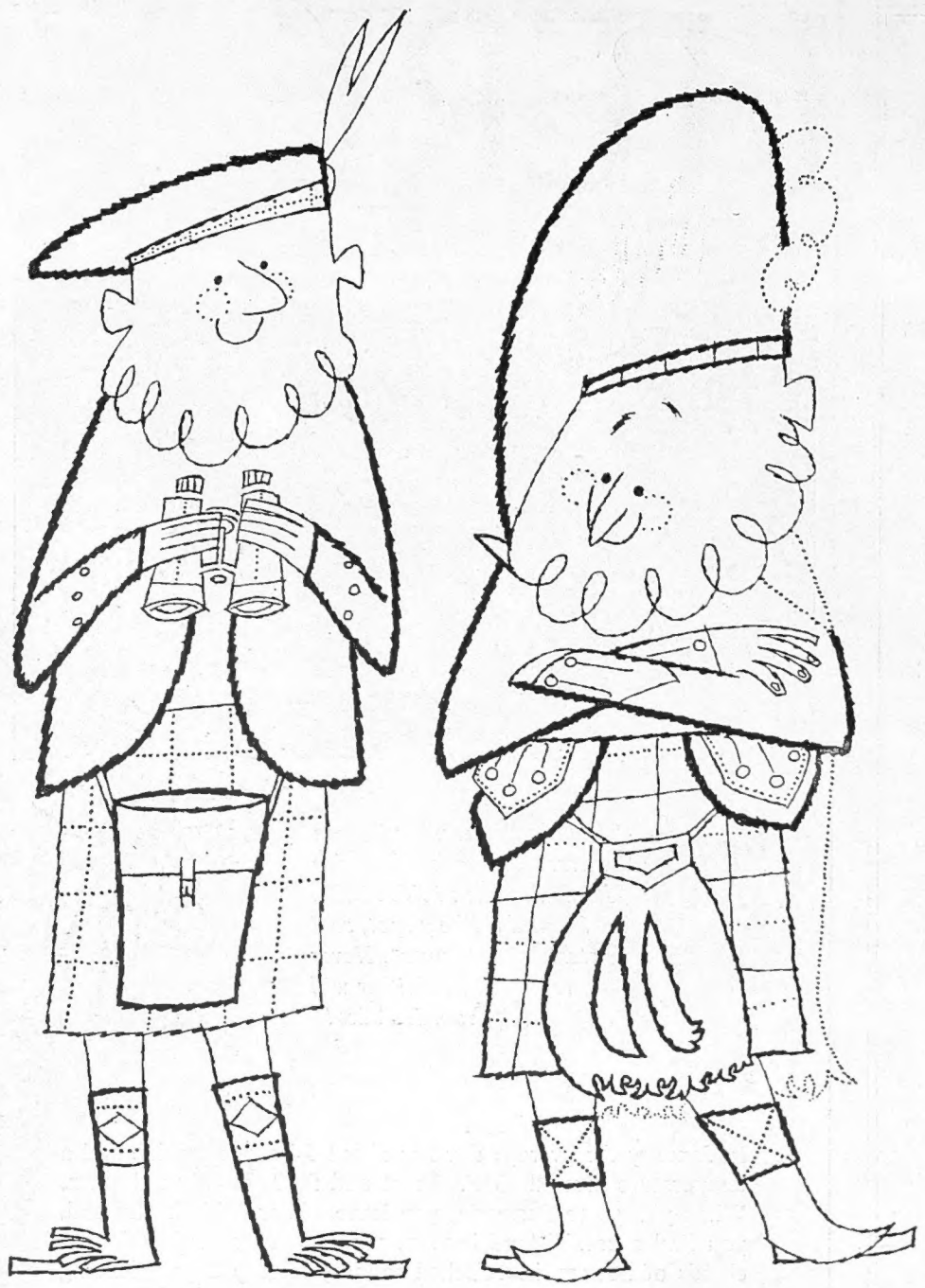

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Volume CCXXX No. 2997 The SPHERE, London, September 7, 1957

The SPHERE

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THE NEW RULER OF INDEPENDENT MALAYA—THE YANG DI-PERTUAN AGONG AND HIS WIFE IN THEIR CEREMONIAL ROBES FOR HIS INSTALLATION LAST MONDAY: They are seen outside the building in Kuala Lumpur which has become their official residence. Tuanku Sir Abdul Rahman, the Ruler of Negri Sembilan, formally took office as the Head of State of Sovereign Malaya during the independence celebrations which began last week-end. He has the full Royal style of His Majesty.

September 1 was the day of *Merdeka*, or Freedom, in Kuala Lumpur and the climax of the series of colourful ceremonies by which the Federation of Malaya became an independent member of the British Commonwealth. The Duke of Gloucester represented the Queen and on the previous day had presented the documents of independence to the first Prime Minister of the Sovereign Federation, Tunku Abdul Rahman (formerly Chief Minister of the old Federation). Then last Sunday, in the specially-constructed *Merdeka* stadium, the Duke read the Queen's message "welcoming you to the brotherhood of our Commonwealth family of nations." In reply the Premier, resplendent in a uniform of his own design, declared that "Britain will ever find in us her best friend" and called seven times for the people to shout *Merdeka*. Among the other historic spectacles was the installation of Tuanku Sir Abdul Rahman, Ruler of Negri Sembilan, as the Head of State or Yang di-Pertuan Agong. He was elected by the other rulers in the Federation. Nearly thirty nations were represented at the celebrations. (Further pictures from Malaya on pp. 334 and 355.)

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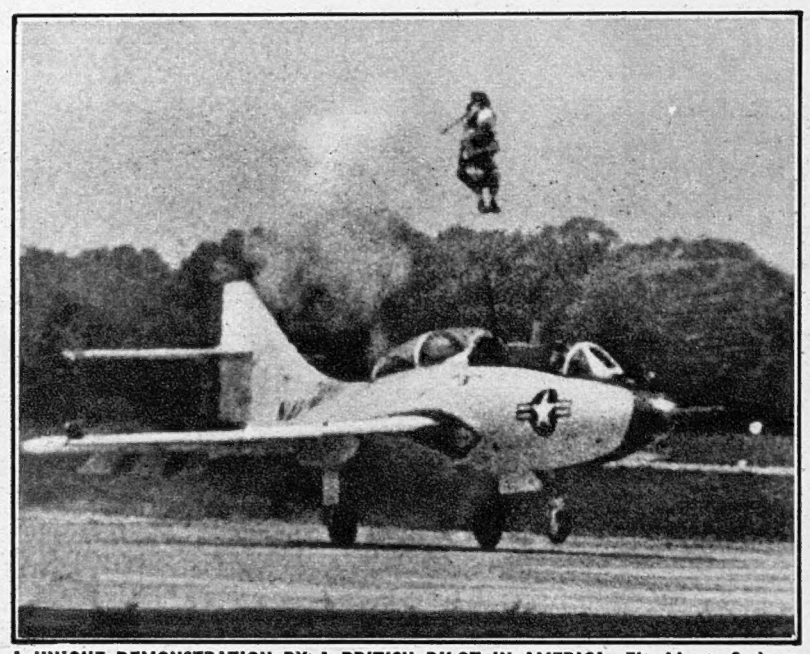


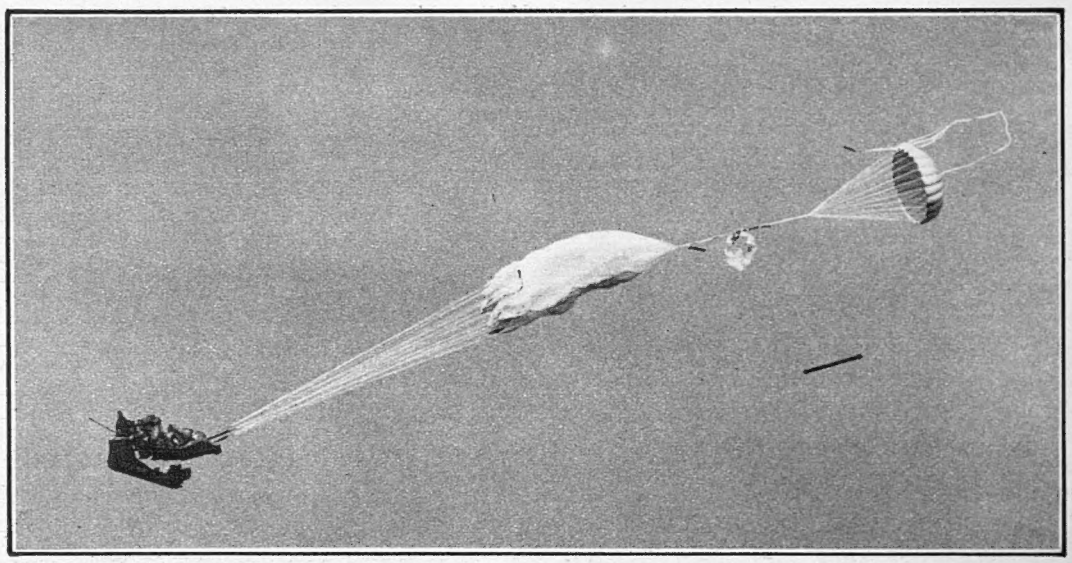
A UNIQUE DEMONSTRATION BY A BRITISH PILOT IN AMERICA: Flt.-Lieut. Sydney Hughes, R.A.F., is shot into the air from a U.S. Navy jet fighter almost at ground-level in a demonstration at Patuxent River, in Maryland, U.S.A. He was using a British Martin-Baker ground-level ejection seat and it was the first time such a low-level test demonstration had been ever seen in America.

The performance of Flt.-Lieutenant Hughes at the United States Navy's Air Test Centre was a triumph for British daring and design. Spectators saw a Grumman Navy jet fighter brought down at speed almost to ground-level. Then from it Hughes was ejected in a British Martin-Baker Mark V ground-level ejection seat. He shot high into the air and first the guide parachute and then the main parachute quickly opened. The seat fell away and Hughes parachuted smoothly to the ground. The whole demonstration was over in a few seconds and at the end of it Hughes said that he "felt fine" and did not need a medical examination. It was reported that considerable orders for the Martin-Baker seat followed this display of British skill, for such a demonstration had never been seen before in America.

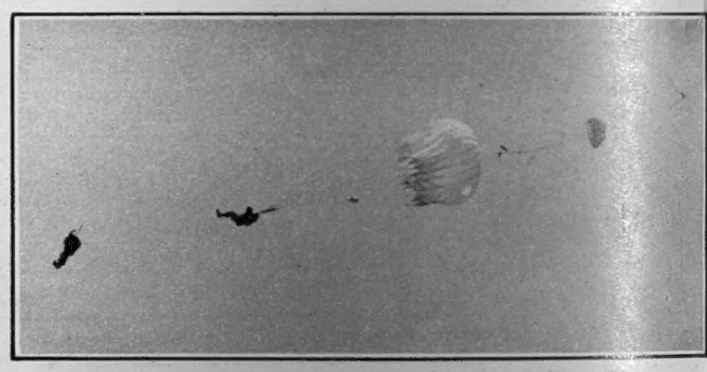
A VITAL STAGE IN THE OPERATION OF THE EJECTION SEAT: Well up in the air the parachute apparatus attached to Flt.-Lieut. Hughes in his Martin-Baker seat is beginning to open. Below him the Grumman jet fighter from which he was ejected continues its run slightly above the ground.

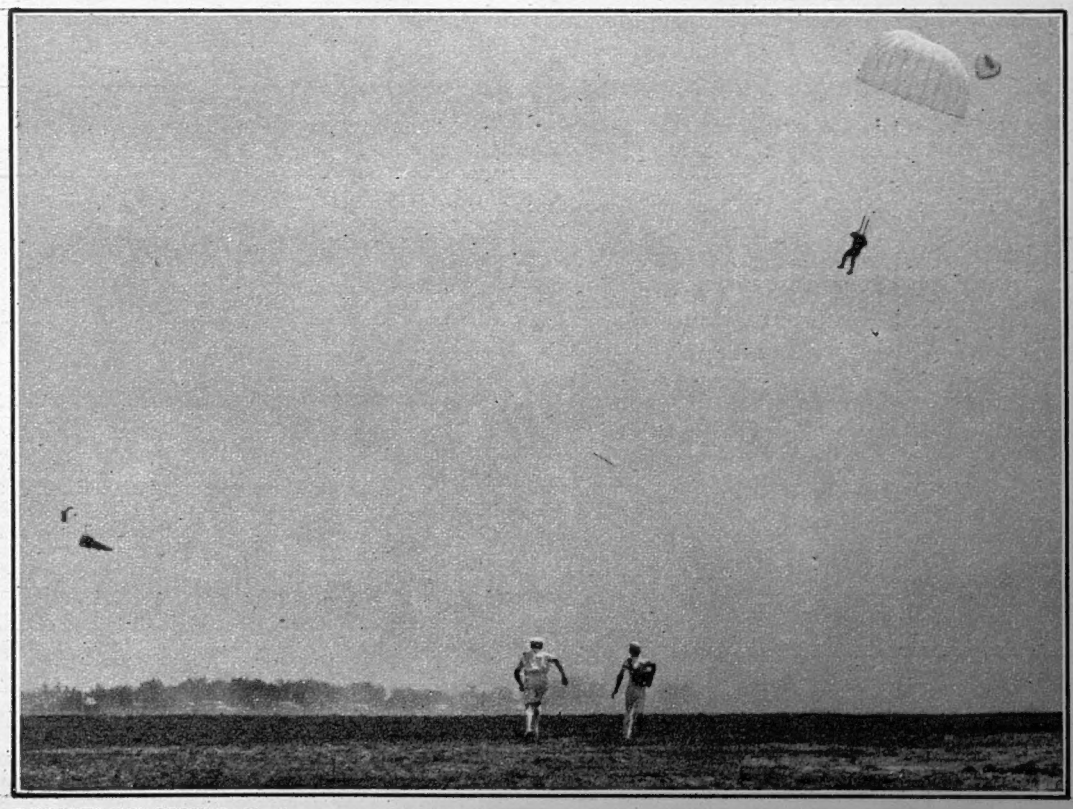
BRITONS MAKE HISTORY IN THE AIR

Low-Level Ejection Demonstrated in America; A New Height Record; S.B.A.C. Show



ENSURING A SAFE DESCENT: The parachutes are now ready to take control from the Mark V Martin-Baker low-level ejection seat. *On right*—The seat drops away from Flt.-Lieut. Hughes as he swings on the parachute attachment above the airfield during the demonstration at the United States Navy's Air Test Centre.

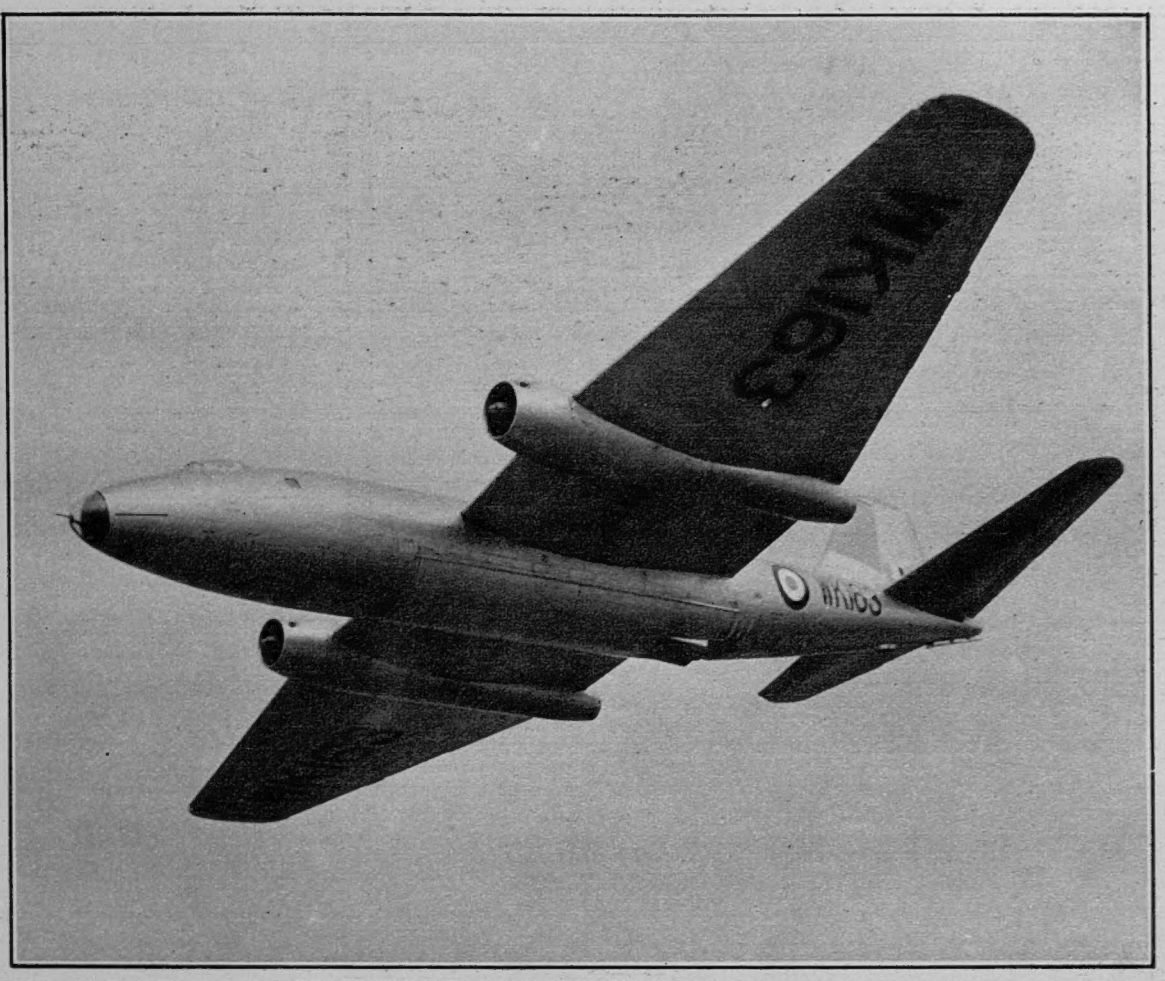




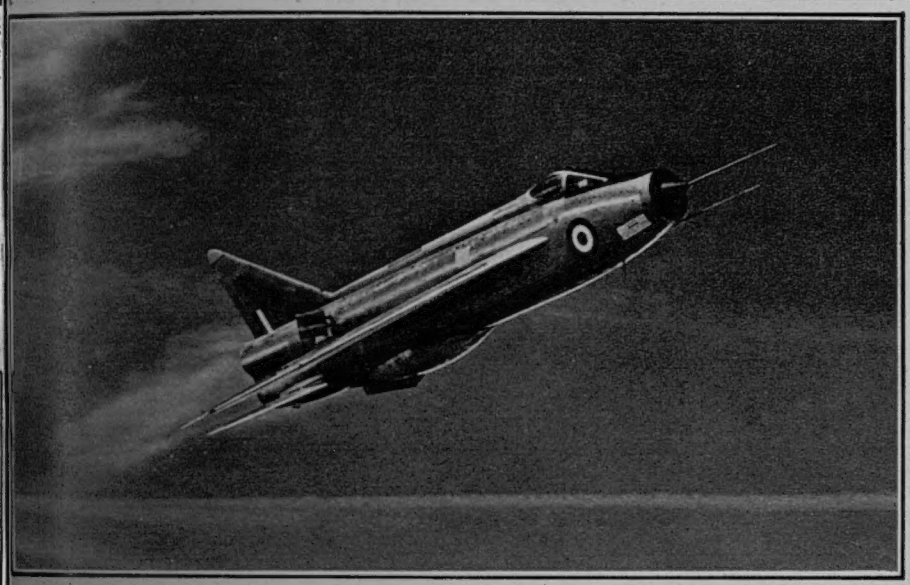
DOWN TO THE GROUND: Hughes comes smoothly down on his parachute. *On right*—He stands with the Martin-Baker seat which was slightly modified to fit the Grumman jet fighter. The entire demonstration took only a few seconds. As result of its success orders have been placed by America for the apparatus.

MAKERS OF A NEW HEIGHT RECORD: Mr. Michael Randrup (left) and Mr. Walter Shirley examine the Napier Double Scorpion rocket engine beneath the Canberra B.2 in which they set up a new aircraft altitude record of 70,000 ft.

Last week Mr. Randrup, chief test pilot of D. Napier and Son Ltd., and Mr. Shirley, Deputy Chief Engineer, took off from Luton airport in a standard Canberra B.2 to which was fitted a Napier Double Scorpion rocket engine. They climbed to 44,000 ft. on the aircraft's two Rolls-Royce Avon turbo-jets. Then the Double Scorpion was brought into action and was not shut off until the climb had reached 70,000 ft. Their feat was submitted to the International Aeronautical Federation for confirmation as a new world altitude record for aircraft, the previous record being 65,890 ft. The power of the rocket is secret, but it is known that it can be stopped and started at any height and greater altitudes may soon be reached with its aid.

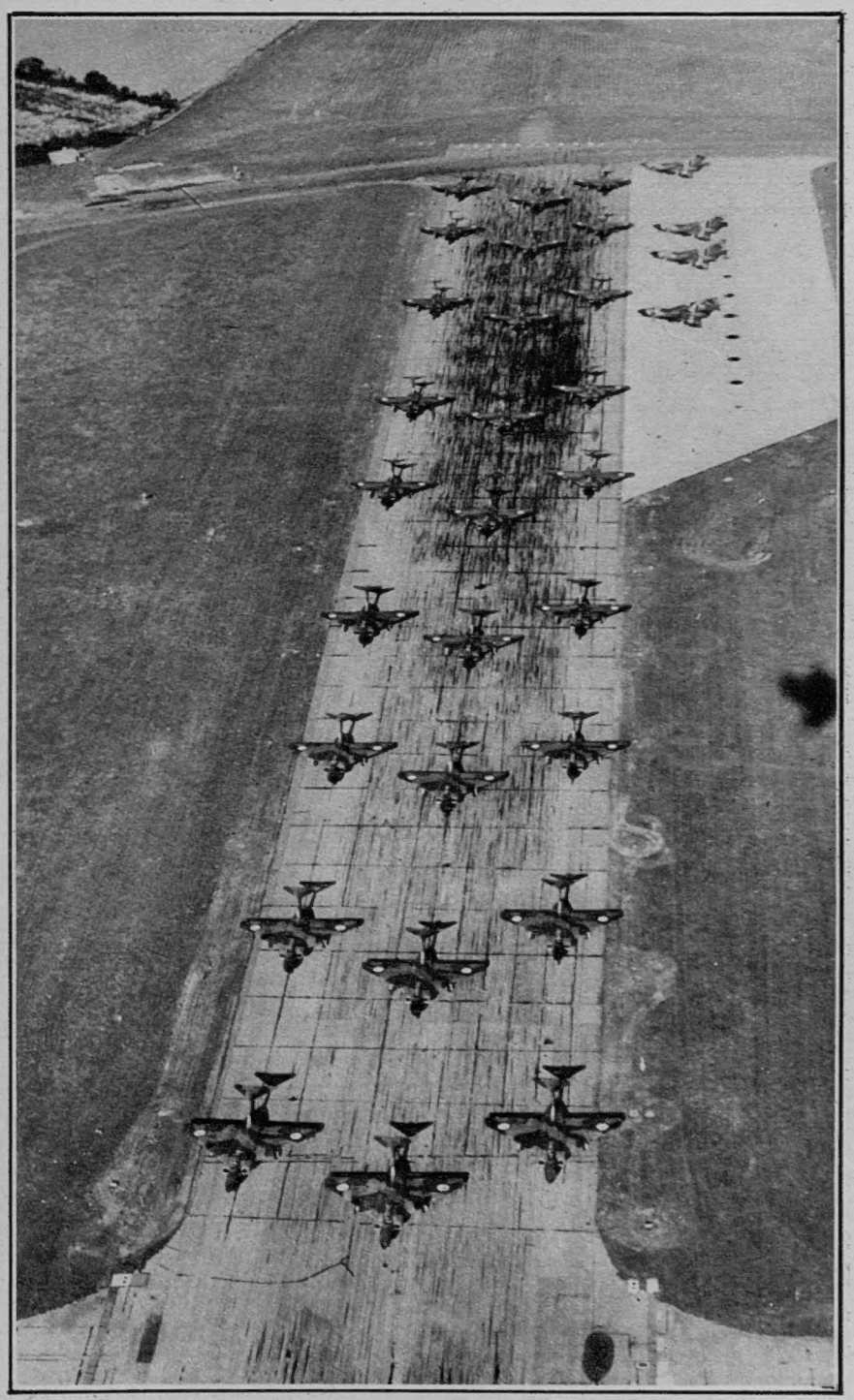


THE HIGHEST-EVER AIRCRAFT IN FLIGHT: The Canberra B.2 is powered by two Rolls-Royce Avon turbo-jets and the protuberance below its fuselage is the Napier Double Scorpion rocket engine which played a vital part in lifting it to a height of over thirteen miles.



FLYING OVER FARNBOROUGH: The English Electric P.1B is seen in the air as it arrives at Farnborough for the Society of British Aircraft Constructors' Display, which opened last Monday and finishes on Sunday. The P.1s are the first British aircraft capable of continued supersonic speed in level flight and with the Fairey Delta 2 are held by the exponents of manned fighters against robot missiles to be the best examples of these types of manned air deterrents against stratospheric bombers. The P.1B is a development of the P.1A, which is powered by two Armstrong Siddeley Sapphire turbo-jet engines. The prototypes of the P.1B were powered by two Rolls-Royce Avon engines with afterburners. However, although manned aircraft are being fully exhibited, there is also a great emphasis on several of the latest missiles, including the *Fireflash* and the *Bloodhound*.

GUIDED WEAPONS ON SHOW: Part of the Guided Missile Section, which is one of the features of the Farnborough Air Show. In the centre is the Thunderbird, one of the nine types of British missiles on view. It is a surface to air rocket-propelled anti-aircraft weapon.



A PATTERN OF FIGHTERS: Javelins of the Royal Air Force lie in precise formation on the ground at Tangmere, in Sussex. They were about to take off to fly past in one of the demonstrations at the Society of British Aircraft Constructors' Show at Farnborough.

A SEPTEMBER SURVEY

Sovereign Malaya.—Amid scenes of great gaiety and colour, the Federation of Malaya has marked its accession to full independence within the Commonwealth. However, the Federation has not been in the same case as Ghana was and Nigeria still is. Most of its territory has never, strictly speaking, been a colony. Nine of the States have never been more than British-protected and their rulers have always technically been sovereign. Only two—Penang and Malacca—have been directly under the Crown. Now, by the constitutional instrument handed by the Duke of Gloucester in Kuala Lumpur to Malaya's representative last week-end, British guidance and the Crown's Sovereignty have been ended. In fact, at that instant, Tunku Abdul Rahman moved from being Chief Minister to Prime Minister, and the Ruler of Negri Sembilan became Head of State of the Federation. The Premier has already made it clear that the first Government of the Independent Federation intends to concentrate on domestic improvements and economise as far as possible on defence. He hopes to bring the remaining Communist guerillas to accept new surrender terms within twelve months (but has no intention of legalising the Communist Party). Malaya, it seems, will not join SEATO—at any rate, for the time being—and for defence against any external aggression will rely upon British support under the defence treaty. As Malaya celebrates, there are two men who can take particular pride in Britain's fine record there over the past few years : Sir Gerald Templer, who turned the tide against Communism from 1952-54, and Sir Donald MacGillivray, the High Commissioner, who has returned to Britain having ensured the best start for Sovereign Malaya.

Next Steps in Nigeria.—The beginning of this month also sees history being made in another part of the British Commonwealth—Nigeria. As result of the decisions taken at the Nigerian Constitutional Conference in London earlier this summer, the constitution of the Federal Government has been amended. (By a pleasant coincidence, the changes took place on the same day that Malaya received independence.) In Lagos the old Federal Council of Ministers was dissolved and the Governor-General sent for the obvious choice in the House of Representatives to invite him to take office as Prime Minister. In other words, Nigeria took an important step towards the full independence eventually envisaged. Very rightly, a public holiday was proclaimed last Monday in Lagos to mark the historic occasion when the House of Representatives was opened with its new form of Cabinet. There must be many who hope that Nigeria is not going to start trying to run before it can walk. Neighbouring Ghana appears at the moment to be providing an example of this. All sympathise with Dr. Nkrumah in his efforts to advance the economic and social welfare of his people, but it may be pertinently asked whether this cause is assisted by a rush of legislation which includes an ominous-sounding internal intelligence organisation or by deportations of those who disagree with the policies of Accra. The culture of true freedom can only develop slowly.

Question-Marks Over Syria.—Inevitably in a survey of the current world scene the eyes must soon alight on the Middle East, and at the moment on Syria in particular. A few days ago it seemed that the Russians were so sure of their hold that a visit to Syria " before the end of the year " was announced for Marshal Bulganin and Mr. Khrushchev. Within the next twenty-four hours there were strong denials of this, both from Moscow and Damascus. Whether the visit would be confirmed or not, this uncertainty of plans was taken by observers as symptomatic of the situation prevailing in Syria. Undoubtedly the Kremlin would like to show the world that Syria is to be regarded as its first Middle East satellite. At the end of last month Mr. Alazm, Syrian Defence Minister, visited Moscow and went home with promises of much economic aid and further military supplies. In spite of this, other Syrian leaders, notably from the Foreign Office, insisted that the country was determined to maintain a " neutral " policy between West and East. This was taken to mean that there must at least be some among the Nationalists who recognise what full domination by Russia really implies. But the immediate future of Syria probably depends less on the politicians than the Army, and the mysterious back-room dictator, Colonel Sarraj.

Rockets and Disarmament.—On the day following the announcement from Moscow that the Soviet Union had carried out successful tests with an inter-continental rocket weapon, Mr. Zorin, the Russian representative, spoke at the London Disarmament Conference and virtually rejected the Western plan for partial disarmament. His speech was a wild outburst in which he accused the West of preparing for another war and not really wanting to disarm. Optimists hoped that Mr. Zorin might come to the Sub-Committee's meetings this week with second thoughts. It was pointed out that for violence to be succeeded by compromise was a not-uncommon pattern in Soviet political behaviour. But pessimists feared the session might end in complete breakdown. Whatever happens, it looks as if the whole question of disarmament has now entered a new phase. Russia may insist on taking it out of the hands of the Sub-Committee and raising it at the United Nations General Assembly, probably in the form of a high-sounding but totally unrealistic motion for a complete ban on nuclear weapons. Possessed of H-bombs and rockets, the Soviet Union will deplore the existence of such weapons, while carefully leaving itself a comfortable margin for adventures in limited areas of its own choice. Moscow as a peace champion may find support from a number of the Afro-Asian countries which are unaware of the enormous difficulties the West has had to overcome in formulating a " first step " in partial disarmament as the only practicable and realistic proposition for the world as it is to-day.

A REQUIEM FOR MONSIGNOR RONALD KNOX: A general view during the Requiem Mass in Westminster Cathedral for the famous scholar, man of letters and wit, who died a fortnight ago. The panegyric was given by Father D'Arcy.

" The Old Stager " is on holiday. " A London Newsletter " will be resumed in next week's issue.

LEADERS OF INDEPENDENT MALAYA: Tuanku Sir Abdul Rahman (right), Ruler of Negri Sembilan and the elected Yang di-Pertuan Agong, or Head of the new fully Sovereign Federation of Malaya, and Tunku Abdul Rahman, Prime Minister of the Federation. In the Malayan Cabinet there are three other members with the name of Abdul Rahman—the Ministers of Transport, Interior and Justice, and Plenipotentiary without Portfolio. The last two are related.

Britain's Industrial Potential.—This is something of a peak period for British exhibitions. First, of course, this week has seen the annual Farnborough Air Show of the Society of British Aircraft Constructors. Then there are two outstanding shows in London—the Engineering, Marine, Welding and Nuclear Exhibition (ending on September 12) and the Radio Show (which finishes to-day, September 7). Intending visitors to the former should not be put off by its rather forbiddingly expert name. The stands at Olympia prove that British manufacturers are not only carrying on the tradition from the past for goods of the finest quality. They are also keeping pace with the demands of the nuclear age. Indeed, the display is an " eye-opener " to the layman and a wonderful tonic against the Jonahs who keep proclaiming that British industry is being out-rivalled and out-generalled by foreign competition. The Radio Show at Earls Court is naturally more concerned with TV than Sound. It is encouraging to note that British makers are now producing certain set components for which hitherto we have mainly had to rely on supplies from abroad. In the near future comes the Motor Show. All British exhibitions share a common factor. Their organisers avoid the spectacular and sensational and present the average purchaser from overseas with the sort of goods he wants to buy.

Ronald Knox.—The late Monsignor will always be remembered with deep affection by the older generations as " Ronnie " Knox. He was one of those rare beings who possessed great virtuosity but was never facile. In his youth he had to overcome the obstacle of being a prodigy. His wit was legendary before the First World War, and *Absolute and Abitophel* still gives delight to readers for the manner in which it outmasters the master, Dryden. Knox moved from the Anglican to the Roman Communion in 1917, but from that time he never engaged in sectarian polemics. In the latter part of his life his chief work was undoubtedly his monumental translation of the Bible.

RATES OF SUBSCRIPTION TO " THE SPHERE "

Orders for subscriptions to THE SPHERE *should be handed to any bookstall or newsagent, or addressed to the Subscription Department,* THE SPHERE, *Ingram House,* 195-198, *Strand, London, W.C.2. The rates for* 12 *months, including Christmas Number, for Great Britain and Eire, are* £6 6*s.*; 6 *months and Christmas Number,* £3 5*s.* 6*d.*; 6 *months without Christmas Number,* £3 1*s.*; 3 *months (no extras),* £1 10*s.* 6*d. For Canada the rates for the same periods are* £5 14*s.* 6*d.*; £2 19*s.* 6*d.*; £2 15*s.*; *and* £1 7*s.* 6*d. For the U.S.A. the rates for the same periods are* $18.50; $9.50; $9.00; *and* $4.50; *and for elsewhere Overseas* £6 8*s.* 6*d.*; £3 6*s.* 6*d.*; £3 2*s.*; *and* £1 11*s. All terms above include postage.*

THE NEWS IN PICTURES

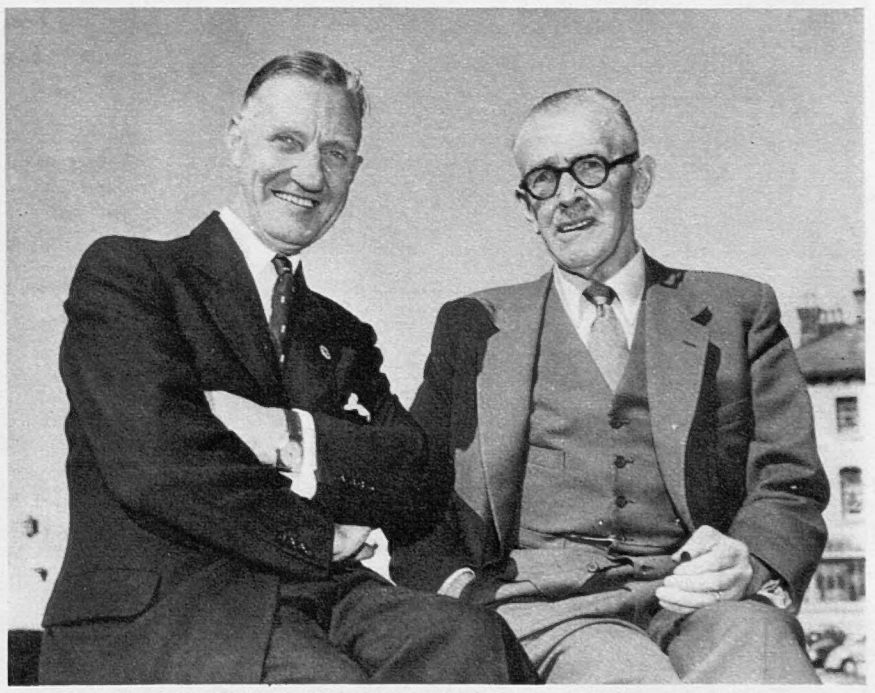
BRITISH SOLDIERS RESCUED IN JUNGLE AIR CRASH: Driver L. W. Moore, of No. 55 Company, Royal Army Service Corps, jumps down from a R.A.F. helicopter which was used to rescue the survivors from a R.A.F. Valetta aircraft which crashed in the thick jungle near Raub, Central Malaya, last month. He was one of four R.A.S.C. air-despatchers on board who survived the crash. The Royal Air Force crew of three were killed.

TAKING A CASUALTY TO HOSPITAL: Heavily bandaged, Driver E. Roe, of Bishop Auckland, is taken by stretcher to the Kinrara Military Hospital in Kuala Lumpur, Malaya, after being rescued from the crashed R.A.F. aircraft in the jungle of Central Malaya. The aircraft had left Kuala Lumpur to drop supplies and leaflets to anti-Communist ground patrols. The four survivors are reported to be progressing satisfactorily.

ENGINEERING EXHIBITION AT OLYMPIA: A general view of the stands in the Grand Hall at Olympia where the Engineering, Marine, Welding and Nuclear Energy Exhibition is being currently held until September 12. More than a third of the 500 exhibitors have on view new products and developments. For the first time, the exhibition is being used by many firms to show how they are linking conventional engineering practice to the new concepts arising from the development of atomic energy.

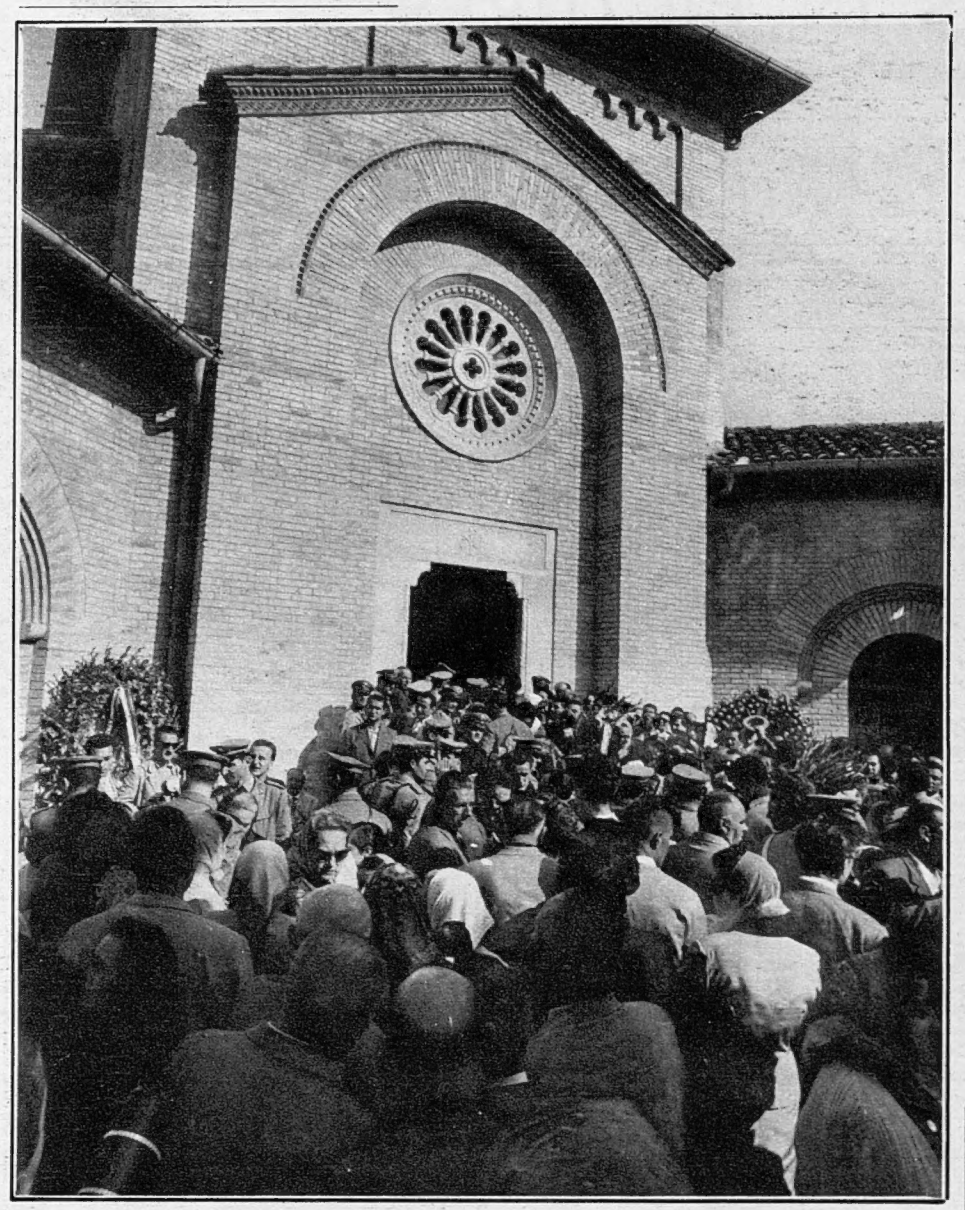
OPENING OF THE RADIO SHOW AT EARLS COURT: Mr. Aubrey Jones, the Minister of Supply, addresses a large crowd of visitors who attended the opening of the 1957 Radio Show at Earls Court last week. In declaring the radio show open, Mr. Jones described the radio and electronics industry as the "spearhead" of Britain's industrial advance. He spoke of the four large customers of electronics—defence, entertainment, industry and exports—and noted that exports had shown the most expansion.

THE SHELSLEY WALSH NATIONAL SPEED HILL-CLIMB: Roberta Cowell, the ex-fighter pilot, whose change of sex was registered six years ago, is seen at speed in a 2,485 c.c. supercharged Emerson-Alta racing-car which she drove during the national speed hill-climb at Shelsley Walsh, in Worcestershire, last week-end. She set a new ladies' record with a time of 40·41 seconds for the climb. After setting up this new record, Roberta Cowell, who is well-known in racing circles, said that she hoped to lead her own team of women drivers in next year's Le Mans 24-hour sports-car classic.



AN INFORMAL CONFERENCE ON THE PROMENADE: Sir Tom Williamson, President of the Trades Union Congress (on left), sits in the sun on a wall along the promenade at Blackpool with Mr. Tom Yates, Secretary of the National Union of Seamen. They were in Blackpool for the Trades Union Congress conference which began on Monday. It was expected that Mr. Yates would be nominated for next year's Presidency. Mr. Yates, who lives in London, has been an officer of the Seamen's Union for nearly thirty years. Well over 1,000 delegates are attending this year's T.U.C. conference.

THE NEWS IN PICTURES



PRECAUTIONS AT MUSSOLINI'S FUNERAL: Italian police stand by to prevent scenes at San Cassiano cemetery, in Predappio, near Ravenna, where the body of Benito Mussolini was buried, last week-end. The Duce's remains were hidden for ten years in a Capuchin monastery.

Police barred the main road to the village of Predappio, where Mussolini's remains were buried last week-end and a Requiem Mass was celebrated. For ten years his body had been secretly hidden in a Capuchin monastery at Cerro Maggiore, about fifty miles from Milan. It had been taken there after it was disinterred from an unmarked grave where it had been buried after he had been tried and shot by the partisans in Milan in April 1945. Most of the monks of the Capuchin monastery where the mutilated corpse was hidden did not know that the packing case, sealed with the seals of their order and marked "Provincial—documents" held these macabre contents. In fact, a high Capuchin dignitary stated that fewer than ten people had known of the hiding place.

A few diehard Fascists tried to hold a military ceremony with symbols, salutes and calls of their former regime but these efforts failed almost completely at the funeral, which took place not far from the village where Mussolini was born. Several of the dead man's close relatives, including his widow, Signora Rachele Mussolini, and his youngest son, Romano, were present.

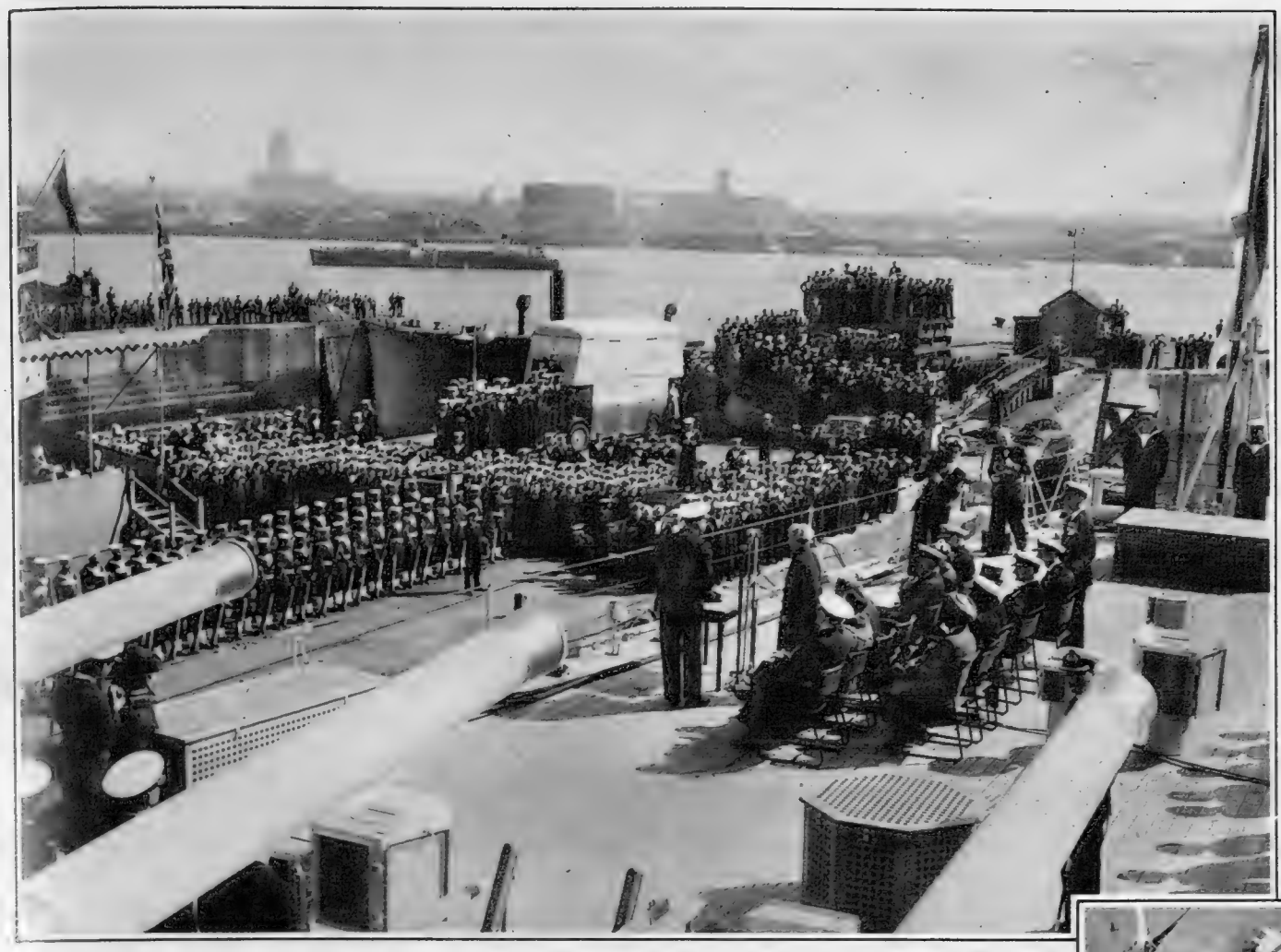
THE CAPUCHIN MONASTERY WHERE MUSSOLINI'S REMAINS WERE HIDDEN: In the courtyard of the monastery at Cerro Maggiore, fifty miles from Milan, Mussolini's body was kept secretly for ten years. The two corner windows in the right-hand wall are those of the room in which his coffin was hidden.

MUSSOLINI'S SON AND WIDOW: Romano, the Duce's youngest son, arrives for the funeral service. *On right*—His widow (left) and her sister are escorted from San Cassiano chapel after the Requiem Mass had been celebrated.

A LAST TRIBUTE TO THE DUCE: A man wearing a black tie, a symbol of Fascism as well as of mourning, raises his arm in the Fascist salute by the packing-case which contains the remains of the Italian dictator. The family of the Duce has undertaken to try to prevent the grave, not far from his birthplace, from becoming a neo-Fascist shrine.

IN LIFE AND IN DEATH: The photograph of the uniformed Duce giving the Fascist salute is a strong contrast to the wooden crate in which his remains were buried.

THE NEWS IN PICTURES



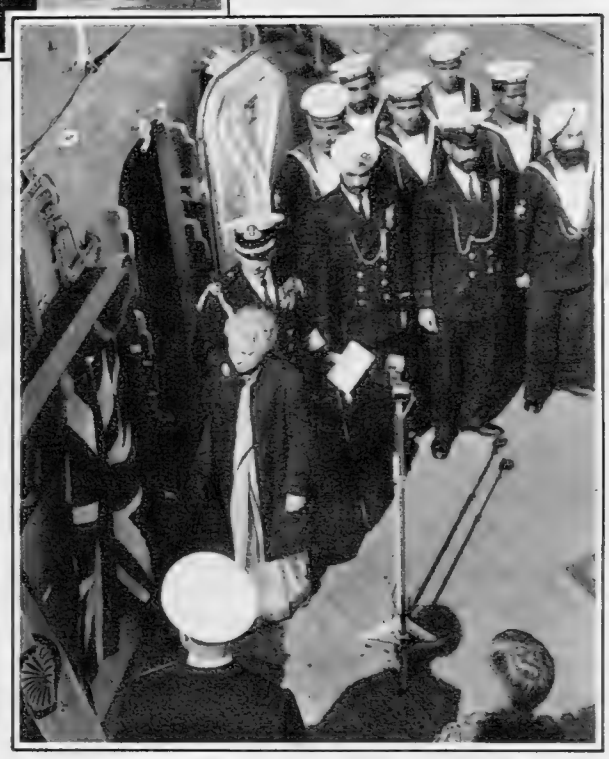
On left—

A CRUISER FOR THE INDIAN NAVY: The Indian High Commissioner in Britain, Mrs. Pandit, who is Mr. Nehru's sister, addresses men of the Indian Navy. She was speaking at Birkenhead, in Cheshire, during the ceremony in which H.M.S. *Nigeria* was transferred from the Royal Navy to the Indian Navy and renamed *Mysore*. The cruiser was formally handed over on behalf of the British Government by the First Lord of the Admiralty, the Earl of Selkirk. The 8,000-ton warship has twelve 6-in. guns and eight 4-in. guns, in addition to strong A.-A. batteries. She was completed in 1940 and saw war service. She will be the Indian Navy's second cruiser and has been refitted and modernised. Very soon she is leaving for sea trials and on completion will exercise with the Mediterranean Fleet before going to India. There she will be used primarily for training purposes.

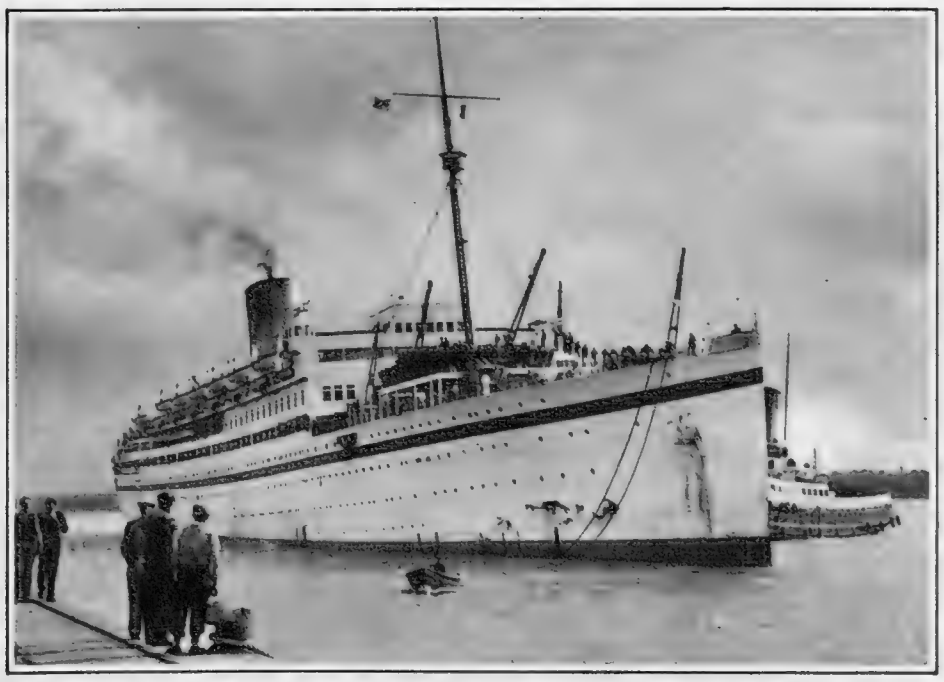
Below—

CHANGING A WARSHIP'S NAME: Mrs. Pandit unveils a plaque during the re-naming ceremony in the shipyard of Cammell Laird at Birkenhead, Cheshire, where the cruiser *Mysore* had been refitted.

SS FAIL TO REFLOAT A FORMER NAVAL DESTROYER: From the shore, two men watch the unsuccessful attempts of tugs of the Britannia Steam Towing Company Limited to refloat the former destroyer *Cleveland* off the South Wales coast at Llangennith, Glamorgan. The destroyer ran aground two months ago in mist while being towed from Cardiff to the breakers' yards at Llanelly. Several attempts were made to free *Cleveland*, but there is little hope that she can now be moved until the next high tides at the end of this month.



RETIRING WITH A FLOURISH: Denis Compton, playing in his last match as a professional for Middlesex, turns a ball to the off at Lord's. Although he was dropped when he had made only six runs, he went on to make 143 against the Worcestershire bowling. This was a splendid finish for his professional career. He may occasionally play for Middlesex as an amateur next year.



THE LAST VOYAGE OF A TROOPSHIP: The troopship *Asturias*, 22,445 tons, is seen docking at Southampton last week, having completed her last voyage as a troopship. She had brought Servicemen home from the Far East. They included about 150 men of the Royal Sussex Regiment, members of the last British battalion to leave Korea. The future of the *Asturias*—which was a former Royal Mail liner—has not yet been decided.

THE NEWS IN PICTURES

AFTER BREAKFAST AT THE WHITE HOUSE IN WASHINGTON: Mr. Eisenhower and Senator Lyndon Johnson, of Texas, take leave of each other after the President had entertained the Democratic Leader of the Senate to breakfast. It was reported that they had had a most "instructive and enjoyable" meal and discussion. Senator Johnson is understood to have agreed to the compromise on the President's foreign aid appropriations, which had been heavily cut by the Democrat majorities in Congress. It is generally considered that Senator Johnson can well afford this concession as his party are more than ever in control of American policies because of their entirely unexpected victory in the by-election for a Senator for Wisconsin in succession to the Right Wing Republican, the late Mr. McCarthy.

THE 2,000TH ANNIVERSARY OF THE FOUNDATION OF BASLE: The President of Switzerland, Dr. H. Streuli (on left), and the Foreign Minister, M. M. Petitpierre, walk in a procession through the streets of Basle during the Swiss city's 2,000th anniversary celebrations. It is generally accepted that Basle was founded in 44 B.C. by the Roma... General, Munatius Plancu... He chose this site because ... its strategic importance... To-day the city has a popu... lation of 250,000 and has ... harbour on the Rhin...

On left—

A BEARD FOR A PRINCE: One of the clowns from the Knie Swiss National Circus at Berne, in Switzerland, raises his hat after presenting a bouquet of roses to Princess Grace of Monaco during one of the intervals at a performance of the circus given before a crowded audience last week. Princess Grace was accompanied by her husband, Prince Rainier, who, as can be seen from this picture, has followed the current trend of growing a beard. During the performance Prince Rainier and Princess Grace sat in the front row of the Big Top. They are at present spending a holiday in Switzerland at the Chaet Sunnehuus, Schonried, in the Bernese Alps.

A FRENCH MINISTER'S TOUR OF ALGERIA: M. André Norice (on the right), the Minister of Defence in the French Cabinet, talks in Oran with General Paul Ely (centre), Chief of the French General Staff, and General Raoul Salan, Commander of the troops in Algeria. The Minister, who was about to return to Paris, had completed a rapid trip through Algeria. He is believed to have discussed measures to close the Algerian borders with Tunisia and Morocco, over which most of the arms supplies of the rebels are smuggled.

On right—

PERSONAL CONTACT WITH THE FRENCH TROOPS IN ORAN: The Minister shakes hands with a French lieutenant during one of his many visits to troops stationed in Oran.

VOTERS' CHOICE IN GERMANY: This hoarding is typical of many all over West Germany as voters prepare for the Federal elections on Sunday, September 15. The posters of the various parties soliciting the electors are, from the left: the Socialist Party (the serious opposition to Dr. Adenauer as the alternative Federal Government); the Christian Democratic Union (Dr. Adenauer's Party); the Free Democratic Party (which formerly supported Adenauer but has now broken away and aims at being a "third force" between the C.D.U. and the Socialists); the B.H.E. (Refugee Party, of little significance); the Coalition of German and Free Peoples' Parties (a small splinter group supporting Adenauer); the German Union and the German-Reich Parties (both Right Wing, sometimes labelled neo-Nazi, and of no importance).

WORK BEGINS ON THE SITE OF THE CITY OF LONDON'S OWN THEATRE: A workman is levelling-off one of the existing walls of the bombed site on the corner of Upper Thames Street and Puddle Dock, near Blackfriars, where the new Mermaid Theatre is to be erected. It is being built by Mr. Bernard Miles, the actor and producer, who has rented the site from the City Corporation at a peppercorn rent. There will be seating for 650 people and a restaurant looking out across the Thames.

THEATRE FOR THE CITY

Work has Started on the Site of the New Mermaid Theatre, near Blackfriars

Work has recently been started at the bombed site on the corner of Upper Thames Street and Puddle Dock, near Blackfriars, where will rise the new Mermaid Theatre. It is being built by Mr. Bernard Miles, the actor and producer, to the designs of Mr. Elidir Davies. The evolution of this project began in June, 1951, when Mr. Miles and his wife erected a stage and tiring house of an Elizabethan design in an old schoolroom at St. John's Wood and named it the Mermaid Theatre. During that year a four-week season of plays, operas and recitals was given, and in the following year this was extended to a six-week season. In 1953 the Mermaid Company moved to the Piazza of the Royal Exchange and over 70,000 people attended a thirteen-week season. This amply demonstrated the need for a large auditorium in the City. The City Corporation granted at a peppercorn rent the lease of Puddle Dock, a river site just downstream from Blackfriars Bridge.

The site of the new theatre revives ancient associations, for, in 1612, William Shakespeare purchased from Mr. Henry Walker a house " abutting upon a streete leading doune to Pudle Wharfe (Blackfriers.)" From there he would have convenient access to the Blackfriars Theatre in which he had a one-seventh share. He had placed himself in the heart of London's Tudor and early Stuart theatreland. Within the precincts of a dissolved Dominican monastery, Nicholas Farrant had built London's second theatre in 1578 and, just across the river, lay the Blackfriars Company's summer playhouse, the Globe.

SHOPS WHICH ARE TO BE DEMOLISHED: Indians stand in a street in Vrededorp, a suburb of Johannesburg. The shops are owned by Indians but will soon be pulled down, as Vrededorp has been declared a "White" area. The Indians are to be resettled in a new town which is twenty miles away.

INDIANS in JOHANNESBURG TO LEAVE THEIR HOMES

Apartheid Decrees their Forced Removal from a Scheduled "White" Area to a New "Coloured" Town

AN INDIAN CLOTHING STORE: Its windows on the pavement in Vrededorp are well stocked with a variety of goods. But the Indian proprietor must soon lose his livelihood as this district will be occupied exclusively by Whites.

THE SITE FOR THE NEW INDIAN TOWN: The bare veldt has been marked out in sites for flats and houses. The town, which is being called Lenasia, at present consists of a handful of completed dwellings. It is twenty miles from Johannesburg, where until now the Indians have lived and worked.

TO-DAY it seems one of the ironies of history that Gandhi began his political career in South Africa. It was there at the end of the last century that he first became a world figure with his campaigns of non-violence on behalf of the rights of the Coloured population. It is fascinating to speculate what might have happened had he not decided, after the Boer War, to remove his activities to his native India. Would the Viceroy still rule from Government House in Delhi? Would Dr. Malan and Mr. Strydom ever have had their names recorded on the pages of history books? Would the term Apartheid have entered our dictionaries? The present situation in South Africa is indeed ironic and also tragic.

Every month brings further evidence of the determination of the National Party to pursue its policy of racial segregation to the extreme. It affects not only the White and the Native Black populations, but all the inhabitants of other colours, among them the Indians. The pictures on these pages show what is happening to some of the 9,000 Indians living in Johannesburg. They are only a fraction of the hundreds of thousands whose livelihood is being so grimly threatened, but their story illustrates the whole tragedy being enacted in the Union. Parenthetically the term "Indian" in South Africa seems to cover both modern Indian and Pakistani. From this unity, although inspired by misfortune, the ghost of Gandhi, peering from behind the window of his erstwhile law office in Johannesburg, may take a grain of comfort.

The instrument being employed against the Indians is the Group Areas Act, which places the whole of the Union on a "controlled area" basis in relation to ownership and occupation of land by racial groups. Any part of a controlled area can be set aside as a group area in which only members of a particular racial group are allowed to live, to own property or conduct business. It shall be populated exclusively by one of the three defined racial groups—White, Native or Coloured.

The Act is being applied to a suburb of Johannesburg called Vrededorp. For some time the suburb has suffered from modified Apartheid, for instance in certain streets Whites only have been allowed to own property on one side. But now the whole of Vrededorp has been scheduled as "White." The Natives and the Coloured, among the latter several hundred Indians, must leave.

The Government's solution for the Indians is to grant them an area for a new town named Lenasia. But on the most elementary principle of justice one can understand the Indians' objections. Many of them have hitherto made their living as merchants or shopkeepers in Vrededorp. Their shops are to be pulled down. Granted they can, in theory at any rate, open new shops in Lenasia, but in a comparatively small all-Indian community there is hardly likely to be the same demand for their wares as there was in Vrededorp. For those who will still be able to work in Johannesburg there is an additional problem—transport. Lenasia is twenty miles outside the city.

Beyond the economic aspect is the much broader issue of the right of any Government to order forced migrations. It must not be thought that the entire White population of South Africa is prepared to stand by and watch these coerced removals of large sections of the inhabitants. Liberal leaders have addressed large audiences at protest meetings in Johannesburg. Throughout the country they are campaigning against the Group Areas Act and all the other Apartheid measures.

Events in the Union to-day not only stir the consciences of many outside, they also disturb their comfort. The situation becomes more dangerous as the division between two extreme points of view becomes wider. On the one side is racial segregation and all it implies. On the other the demand for immediate equal rights for White, Native and Coloured. To the Englishman the ideal of equality between all is an accepted ideal, the basis of the Commonwealth. But it is recognised by the moderate-minded that for some a stage of controlled evolution is necessary before equality can be achieved. The tragedy of South Africa is that the National Party does not appear willing to allow such development among the non-European people. The Native and the Coloured are to be segregated and told that they can never be the equal of the White. This extremism has resulted in an equal extremism among

APARTHEID STREET: In Vrededorp hitherto Whites only have been allowed to own shops on the left side. On right are Indian shops. But these must now disappear.

IN THE NON-EUROPEAN QUARTER OF A SCHEDULED " WHITE " AREA OF JOHANNESBURG: Children play outside shabby dwellings while their parents discuss the problem of their forced ejection. The Group Areas Act not only establishes separate residential areas for Europeans and non-Europeans, it also divides the latter into the Native and Coloured populations.

AN INDIAN FAMILY WHICH HAS MOVED: *Left, above*—Mr. Wilfred Warnasuriya (in white shirt on veranda) watches young members of his family dig outside their new home in Lenasia. He was able to buy his house and has a car to take him to work in Johannesburg. Most Indians cannot afford to do this. *Right*—The Warnasuriyas in their living-room.

AT A PROTEST MEETING: Indian women listen to a speech at a mass meeting held in Johannesburg to protest against the forced removal of the Native and Coloured people.

the non-Europeans. For anyone in the slightest way familiar with the reality of modern politics, it is obvious that in a country in which the Whites live at the disadvantage of a 5:1 ratio against them, the majority is wide open to Communist propaganda.

Of course the Strydom Government tends to brand all its opponents as Communists. But impartial observers have noticed an increasing Marxist trend in the utterances of many who are opposed to Mr. Strydom. In this lies the real danger. The Kremlin, eager to stir up trouble outside its Satellites on every possible occasion, regards South Africa as increasingly fertile ground. And, unfortunately, Moscow does not hesitate to exploit Christian and Liberal idealism for its own purposes. The action of Mr. Strydom and his colleagues will certainly end in disaster for themselves. Unfortunately it may eventually lead to a political conflagration which may prove equally disastrous to the whole free world.

A CHAMPION AGAINST APARTHEID: Alan Paton addresses a mixed audience of Europeans and non-Europeans. This distinguished author, who is best known for his novel about South Africa, *Cry, the Beloved Country*, is one of the Liberal group in the Union who are carrying on the campaign against the racial segregation policies of the South African Government.

MILITARY ENGINEERING IN A NEW STYLE : During a demonstration at Lee-on-Solent, Whirlwind helicopters of the Fleet Air Arm bring up parts of a Bailey bridge which is being assembled by the R.E. over an imaginary 35-ft.-wide river. *On right*—A helicopter, carrying a Bailey section, hovers and waits to drop its load close to the bridge which is under construction.

BRIDGE-BUILDING BY HELICOPTER

A Demonstration of a Speedy Combined Operation by the Royal Naval Air Service and the Royal Engineers

A public demonstration of a new and speedy method of bridge-building was given last Saturday at the Royal Naval Air Service station at Lee-on-Solent. The participants were 705 Squadron, R.N.A.S., and the 9th Independent Parachute Field Squadron, R.E. For the purpose of the exercise it was assumed that a river 35 ft. in width had to be bridged and an area of this distance was marked out on the airfield. Whirlwind helicopters flew up with the parts of a Bailey bridge hanging from their undercarriages, hovered briefly while the loads were taken off by engineers on the ground and returned to base for more. Meanwhile, the R.E.s were quickly putting together the bridge. Carrying as much as half a ton in one load each, the helicopters enabled the operation to be carried out remarkably quickly. The time gained in this method of bridge-building needs no emphasis. But it is doubtful whether it could be employed to advantage in advanced operational areas because the helicopters would be very vulnerable to attack.

AIR-LIFT TO THE ROYAL ENGINEERS : Men of the 9th Independent Parachute Field Squadron, Royal Engineers, fit the structure of the Bailey bridge, while over them hovers a helicopter of 705 Squadron, R.N.A.S., with a further bridge section.

BRINGING IN THE LOADS : Whirlwinds come up in rapid succession to drop their loads at the end of the bridge. These aircraft can each carry as much as half a ton of structure on one flight. The demonstration was completed very rapidly.

A CONGRESS OF YOUTH IN ROME

Thirty Thousand Roman Catholic Workers Gather in the Eternal City

Over 30,000 young men and women gathered in Rome towards the end of last month for a Roman Catholic Youth Congress, held by the Young Christian Workers' Movement, which was founded before the First World War in Brussels, to re-Christianise the lives of young workers. The movement is predominantly but not exclusively Roman Catholic.

There was a large number of picturesque scenes. National folk dances of many countries were demonstrated and a religious pageant and torchlight procession took place. A climax of the youth rally was a vast Papal audience which, it was claimed, was attended by nearly 300,000 people. In his speech, which he gave in several languages, Pius XII exhorted Roman Catholics everywhere to work hard for Christian principles and to resist materialistic and Communist encroachment. He warned his listeners against false prophets who, he said, "sow the seeds of hate and rebellion, deluding the workers." Then he blessed the enormous crowds who had gathered to listen to him.

Last week a train bringing back 650 of the delegates to Britain was derailed in Eastern France. Two girls were detained in hospital after the accident. There were no other serious injuries.

AT A ROMAN CATHOLIC YOUTH CONGRESS IN ROME : Young workers dance on a circular platform built round the obelisk in St. Peter's Square, after Pope Pius XII had welcomed 30,000 of them to a congress in Rome.

FOLK DANCE : Young workers from Southern Germany perform a folk dance. They were among the delegates from eighty-eight nations at the Congress of Roman Catholic workers in Rome last month. Some 1,300 went from Great Britain. They were accompanied by the Roman Catholic Bishops of Middlesbrough and Menevia. Twenty territories in the British Commonwealth were represented. This Young Christian Workers' Movement, which is predominantly but not exclusively Catholic, was founded before the First World War in the slums of Brussels to re-Christianise the lives of young workers.

THE POPE BLESSES THE FAITHFUL : Pius XII is carried on his chair in St. Peter's Square. In his address he condemned the "false prophets who sow the seeds of hate and rebellion, deluding the workers."

On right—

INSIDE ST. PETER'S : A vast congregation of delegates is gathered in St. Peter's Basilica for the celebration of a solemn Mass. The Pope travelled from his summer residence of Castelgandolfo to address the international rally.

REMEMBERING THE PERSECUTIONS BY COMMUNISTS : A group of delegates parade with their arms bound during a religious pageant. They symbolise the sufferings of fellow Christians behind the Iron Curtain.

THE MARRIAGE OF PRINCE SADRUDDIN

An Uncle of the Aga Khan Marries Nina Dyer in Switzerland

The younger son of the late Aga Khan, the twenty-four-year-old Prince Sadruddin Khan, last week married Miss Nina Dyer, who has been a model in London. The ceremonies, religious and civil, took place near Geneva, in Switzerland. The civil ceremony was performed in a Swiss school by the Mayor of the district, and at the religious rites in Prince Sadruddin's chateau in Bellerive, two Imams officiated.

Miss Dyer was formerly married to the industrialist, Baron Heinrich von Thyssen. Their marriage was dissolved last year. When she became engaged to Prince Sadruddin she adopted the faith of Islam and changed her name to Shirin, which means "Sweetness."

The wedding ceremonies were a family affair and only twenty-nine guests attended. Among them were Aly Khan, the half-brother of the groom, and the new Aga Khan, a nephew of Prince Sadruddin.

A WEDDING IN THE AGA KHAN'S FAMILY: The bride and groom, the former Miss Nina Dyer and Prince Sadruddin Khan (on the right), leave after the civil ceremony of their marriage at Collonge-Bellerive, near Geneva. Behind them are (from left to right) in front, the groom's mother, Princess Andrée; Aly Khan, and the new Aga Khan. The bridesmaid is a cousin of Prince Sadruddin.

THE BRIDE AND BRIDEGROOM: Prince Sadruddin and his wife, who has taken the Muslim name of Shirin ("Sweetness"), drink a toast. The bride was formerly married to Baron Heinrich von Thyssen.

A SWISS RADIO INTERVIEW: Prince Aly Khan answers questions put to him by a Swiss radio commentator after the wedding. He is accompanied by his fiancée, the French model Bettina.

On left—
THE RELIGIOUS CEREMONY: An Ismailian Imam from Paris officiates at the Chateau de Bellerive, where the religious ceremony took place. With his back to the camera is Prince Aly Khan. The Chateau is Prince Sadruddin's Swiss home. The wedding was a family affair, only twenty-nine guests attending the rites.

Below—
THE CIVIL CEREMONY IN A SCHOOLROOM: The bride and bridegroom sit on the right and Aly Khan sits next to them. At the head of the table is Prince Amyn Khan and at the left-hand corner is the Aga Khan IV.

HASTY REPAIRS TO A BURST DYKE IN HOLLAND: Under the supervision of an engineer standing in the foreground in front of a concrete-mixing machine, a group of men struggle with heavy sandbags which were used as reinforcements when one of the dykes near the village of Hekelingen, on the island of Putten, in south-west Holland, burst during the severe storms which raged at the end of last month. The exceptionally strong winds and gales whipped the waters into a frenzied sea which crashed against a construction wall in the dyke at a point where a lock is to be built. The wall could not resist the power of the waters and a large gap was torn in it.

DUTCH DYKES BREACHED

The Netherlands is Again Threatened by Heavy Flood Waters

On left—

THE SWIRLING WATERS RACE THROUGH A GAP NEAR THE DYKE: As soon as the alarm was raised, all able-bodied persons on the island of Putten were called out to the scene of the flooding near Hekelingen and work continued non-stop to block the gap. Putten was one of the areas worst hit in the Dutch flood disaster of 1953 in which 1,800 people lost their lives. The financial loss on that occasion was over £100,000,000. During the current floods there was no loss of life and only a few buildings, mostly farm-houses, had to be evacuated. However, the waters covered a great deal of the agricultural land and many crops were ruined by the salt water. When the winds subsided, pumping took place to help lower the water-level. Thus the danger of the dyke being further damaged was reduced. Although the floods were very minor as compared to those of 1953, they have, nevertheless, caused considerable anxiety to the Dutch people. They emphasise the importance of the Netherlands Delta Plan of defence against the sea now being carried out to ensure that catastrophes such as the 1953 disaster cannot again occur.

(See also following pages)

NETHERLANDS' DEFENCE AGAINST THE SEA

The Dutch Delta Plan, Immense in its Proportions, is Designed to Protect South-West Holland from the Peril of Floods

IN February 1953, in exceptional conditions of tide and wind, the sea broke through the coastal defence of the Netherlands to take heavy toll of life and property in the south-west. To-day, the Dutch are concentrating on an immense plan to make certain such a disaster cannot again occur despite the temporary set-back which was caused by the storms of last month. The project under construction is known as the Netherlands' Delta Plan. To prove that the conception of it has long existed, officials point to the plans prepared before the 1953 disaster shocked the Dutch people into an awareness of their great danger. The Department of Waterways was already studying a scheme to strengthen the defence against floods by closing three channels in the Zeeland island region. But it was out of the catastrophe that the Delta Plan really emerged as a project of first priority.

Up to 4½ years ago the idea that a large part of the Netherlands stood in any sort of serious danger would have been dismissed by most of the people as preposterous

SAFEGUARDING A NATION AGAINST THE PERILS OF SEA FLOODING : This aerial view shows work in progress on the building site for locks at the dam at Haringvliet in the south-west of Holland. It is one of three and forms part of the Netherlands' Delta Plan which is being carried out to provide the country with safeguards from flooding as well as to protect the rich soil directly behind the coastline from erosion and destruction from salt water and to provide reservoirs for drinking water.

exaggeration. For over a century there had not been any flooding—due to natural causes—that could have reasonably given cause for alarm. However, in a single night the Dutch learned a hard lesson. The unhappy concurrence of violent wind and high tide brought tragedy to make plain the fact that the safety of one half of the country, and the lives as well as the livelihood of 60 per cent. of the population rested on sea defences that were inadequate. More than 1,800 lost their lives; 375,000 acres of land were flooded; 9,000 buildings were destroyed and 38,000 damaged. The dykes were breached at sixty-seven places and many miles of their structure were damaged.

In essence, the Delta Plan is to build three new main dykes, to strengthen others, and to undertake a number of secondary works. The new dykes will be in Veeregat and Oosterschelde, Brouwershavensche Gat and in Haringvliet. It will be necessary also to strengthen the dykes along the Westerschelde and the Rotterdamsche Waterweg, and to dam the Hollandsche Yssel. Secondary dykes have to be built at Zandkreek and Grevelingen to facilitate the construction of the main dykes, and at Volkerak and Oude Maas to control the water-levels.

In the 1953 floods the country round Lake Yssel was kept safe by the Zuider Zee dyke, but to the north of the dyke the margin of safety was shown to be insufficient. Ultimately, the complete security of Holland against the invading sea will rest upon an unbroken coastline, a plan in which the Wadden Islands will be connected by dykes of some kind, but this is looking far into the future.

In the Delta Plan there is no main dyke across the Westerschelde or across the Rotterdamsche Waterweg. Although this is in conflict with the conception of a compact and continuous line of defence along the Netherlands coast there is good reason for the exception. The heavy sea traffic of the ports of Rotterdam and Antwerp would find it too inconvenient to have to negotiate a system of locks through the dykes and there would have to be obvious and preponderant advantages to justify accepting these obstacles to easy navigation.

Nevertheless, gale-swept high tides will be prevented from penetrating the Delta area except in the immediate locality of the Westerschelde and the Rotterdamsche Waterweg. The Delta Plan will provide adequate protection against severe storm floods even though the water-level rises far higher than it did in February 1953. It is estimated that the project will cost about £200,000,000 and that the work will take twenty-five years to complete.

FEWER BRITISH BUTTERFLIES

There is a Marked Diminution in Many Species; but what is the Explanation for the Survival of Others?

By BRIAN VESEY-FITZGERALD

IN September the sun rides lower in the sky. Just looking at the sun, one would not, I feel sure, notice any difference, but on the ground the effect is unmistakable. The shadows of September are longer and deeper, and they lie at angles different from those of high summer, different even from those of August. The effect of this different angle, these longer, deeper shadows, is subtle and easily overlooked—it is part of the pattern of the year and taken for granted—but once noticed it is quite remarkable. In the garden, for example, colours are altogether altered. Indeed, the whole shape and form of a garden may be changed, cool pools of shade lying where, a few weeks before, the sun struck too strongly for comfort and an afternoon nap.

In September the dews come once more. They bring fresh colour and fresh life to the grasses, and fresh scents to the flowers and the trees. They also bring a longer sleep to the birds and the insects, especially to the insects, for the mornings are rather cooler, the day takes rather longer to warm up. Now, if you go out in the morning (and there is no need to get up early) you will find butterflies asleep on dew-laden flowers in the shade (provided, that is, that nobody has been running amuck with lethal sprays in your neighbourhood). They are so fast asleep that you can pick them from the flowers and look at them and put them back again, and there will be no more than a feeble flicker of their closed wings. But, if you open your hand and place one on the palm, your warmth will soon awaken it and the closed wings will open and throb, and it will take to the air. The flowers must be very cold on a September morning before the sun has lifted to chase away the dew.

Butterflies have always fascinated me because of their beauty and lovely graceful flight, which is often purposeful and powerful, and because of the puzzles they set. These puzzles I find never fully elucidated in the books and they are all too frequently ignored altogether. The fact is that we do not really know very much about the habits of our butterflies. We know a great deal, practically all there is to know, about the caterpillar stage, about food plants and feeding habits, and so on: but really very little about the winged insect and its day-to-day affairs.

I did not see many butterflies this summer. It was a good summer, too, with long sunny periods, warm and calm; just the sort of summer, one would have thought, to delight a butterfly. But, in my garden this summer I saw no more than a score of White butterflies. My vegetables did not suffer at all. The two Whites (the Large and the Small) are the only British butterflies that do any real damage to the interests of man, so perhaps this might be considered a good thing. All the same, I rather missed them. And I have really missed the Peacocks, the Red Admirals, and the Small Tortoiseshells. I have not so far this year (there is still time, of course) seen a single Red Admiral or a single Peacock, and only two Small Tortoiseshells. Until quite recently all three were common in the garden, visiting the herbaceous border and sunning themselves on the paths.

I have also been sorry that I have not seen a single Speckled Wood and have only seen two Marbled Whites, both on the same day. There always used to be Speckled Woods along a tree-lined path near my home. Until some three or four years ago many of them haunted this path. Last year I saw very few, perhaps half a dozen: this year I have seen none. The Marbled White has never been common around my neighbourhood. It has always been very parochial in its preference, only frequenting one or two patches of rough ground on a nearby hillside and ignoring other patches which seemed just as suitable. In July you could always count on seeing one or two small parties in an afternoon, a dozen or so at a time. Three years ago the numbers began to drop and they have been doing so ever since.

I do not myself think that there can be any doubt that spraying has brought about the virtual disappearance of the Whites. And I also have no doubt that they will return in due course, though perhaps never in quite their former numbers. It must be remembered that in some years enormous numbers cross the Channel. And I think that the spraying of roadside verges, and the grubbing-up of hedgerows and the reclamation of rough ground in the neighbourhood of agricultural land, accounts for the absence of the Red Admiral, the Peacock, and the Small Tortoiseshell. All three feed on stinging nettle in the caterpillar stage, and neither farmers nor local authorities are noticeably fond of the stinging nettle. I confess to feeling a little less happy about the future in Britain of these three butterflies. They will not be exterminated, of course, but perhaps they will never again be as plentiful as they were before the hey-day of the chemist.

I do not see how one can blame the use of lethal sprays for the virtual disappearance of the Speckled Wood and the Marbled White in this neighbourhood. The caterpillars of both feed on grasses, and so do the caterpillars of the Meadow Brown and the Hedge Brown, the Grayling and the Small Heath. Moreover, they feed on the same grasses. I have heard it suggested that the Hedge Brown and the Grayling are not so plentiful, but I have not noticed any falling-off in numbers. The Meadow Brown and the Small Heath, at any rate, are just as plentiful as they ever were.

The Silver-spotted Skipper, which hereabouts lives on the same hillside as did the Marbled White, and whose caterpillar lives on the same grasses at exactly the same time of year, has undoubtedly maintained its numbers. This delights me, for it is a beautiful and busy butterfly. It has the same parochial preference as the Marbled White, frequenting identical patches of ground year after year. This makes it easy to find. But it is by no means an easy creature to watch, for its flight is swift and close to the ground. It likes the close-cropped turf where the sheep have been, and one flower: the dwarf thistle. Its only other pleasure appears to be the sheep droppings

When it is on the thistle it may be watched closely, so absorbed is it in eating. With wings half open, the upper pair separated slightly from the lower, it is very beautiful. And sometimes, if you are lucky and it is not in such a hurry as usual, you may see the little marks on the undersides of the wings which are like the squares on a chessboard. When it leaves one flower for another, the flight is so swift that it is very difficult to follow. If you disturb it on a flower it may well be an hour before it comes back again.

But what delights me even more is that the Small Copper, whose caterpillar feeds on sorrel, is as plentiful as ever. It is a very common little butterfly, which does not receive the attention it deserves. When you see it pinned in the cabinet of some collector it is a dull object, but in the field it is by far the smartest of all our small butterflies. The burnished red copper shines, and the black spots and edgings stand out boldly. Without light the Small Copper is nothing. It is essentially a creature of the sun. While the sun is up, it always hurries from blossom to blossom.

The Small Copper has some engaging and puzzling habits. It is not uncommon to see one leave its flower-head suddenly and set off in pursuit of another butterfly, usually a Small Copper, but sometimes a *lepidoptera* of a different species. It will follow every twist and turn of the pursued closely for a short distance—the chase is never long—and then it will return to the flower-head it left. Sometimes the chase will excite other Small Coppers and they will join in, so that occasionally you may see one Small Copper setting the pace for several others, each one dropping out and returning to its flower-head after it has covered a certain distance. Or so it appears; for it is impossible to follow the flight of each one closely.

Why do they do this? Is it in anger? Is the butterfly protecting a temporary territory or guarding some particularly desirable flower-head? I do not think that this can be the answer, for the pursuit will often pass Small Coppers without exciting them at all. Indeed, you will often see two or more Small Coppers on the same flower-head. No, I think it must be play. I think that the Small Copper has a sense of fun.

A MYSTERY OF BUTTERFLIES: The Red Admiral has been very rarely seen recently, perhaps because chemical sprays used on hedgerows have proved toxic to it. *On left*—The Meadow Brown, however, is not diminishing in numbers. *Below*—The colourful Peacock is another butterfly which has become scarce.

A GLACIER IN NEW ZEALAND'S SOUTHERN ALPS : Climbers examine a crevasse on the Fox Glacier, in the Southern Alps, in South Island, New Zealand. This glacier lies between Mount Tasman, Mount Haidinger and the Bismarck Peaks and stretches from a height of about 9,000 ft. almost to sea-level. The vast area of ice can easily be reached without strenuous climbing, and it is very popular among visiting climbers. Some of the crevasses are hundreds of feet deep.

A CHAIR-LIFT ON MOUNT RUAPEHU : A woman skier travels in the lift to the high ski-ing slopes on Mount Ruapehu, North Island, New Zealand. The lift has only recently been installed. The electric power line which it has brought to the mountain has encouraged the building of many lodges for climbers. There is also a proposal for a village at 5,800 ft.

IN THE ALPS OF NEW ZEALAND

Climbing and Winter Sports in North and South Islands

The first man to climb Everest was Sir Edmund Hillary, a New Zealander. In retrospect, perhaps, this was not surprising, for New Zealand is a land in which mountaineering and winter sports are most popular. On this page are two examples of the country's mountain areas, one in North Island and the other in South Island.

Until recently the ski-ing slopes of South Island were generally regarded as more accessible than many of those in North Island. Now, however, a chair-lift is operating on Mount Ruapehu, in North Island. This development has eliminated the hours of hard climbing which formerly were necessary to reach the slopes. To-day as many as 500 or 600 skiers go to the Chateau Tongariro hotel or to mountain lodges at week-ends. Ruapehu, which is 9,175 ft. high, is the most popular mountain resort in the North Island. The building of the chair-lift brought electric power line to the mountain and gave hitherto Spartan-equipped lodges modern electrical amenities. As a result, there have been proposals that a village should be built at 5,800 ft. on the slopes of the peak.

At this height there are already ten ski instructors and an eight-man patrol to mark out good and bad areas of snow on the mountain. As more tourists come each year, it is suggested that there should be a post office, two shops, a waiting-room for visitors using the chair-lift, and a restaurant.

A SPLENDID ROCOCO DECORATION: It is above the chimney-piece in the North Hall at Claydon House, in Buckinghamshire. Their eighteenth-century creator was a carpenter-contractor named Lightfoot, about whom little is known. Claydon House, given to the National Trust last year, is now open to the public.

A BUCKINGHAMSHIRE HOUSE ON SHOW

Claydon, near Aylesbury, Given Last Year to the National Trust, is Open to the Public

A MARTIAL THEME ON A CEILING: Martial trophies and boys carrying guns are surrounded by the coronet and cypher of the second Earl of Verney in the North Hall at Claydon. The house and estate belonged for many generations to the Verney family, members of which still live in the Victorianised South Wing.

THE NORTH HALL: In the niches are eighteenth-century statues of Negroes. Medallion busts form the metopes of the frieze, basically apple-green in colour. The walls are painted a Neapolitan yellow which is reflected on the ceiling in lighter tone.

Claydon House is in Middle Claydon Village, thirteen miles to the north-west of Aylesbury. The Verneys, one of the oldest Buckinghamshire families, established themselves there in the early seventeenth century in the house built by Sir Edmund Verney. His successors made numerous alterations and additions in the next two centuries. Last year Claydon was given by the Verney family to the National Trust. Now extensive repairs and redecorations have been carried out with the help of a grant from the Historic Buildings Council and the house is opened to the public every afternoon apart from Mondays. (Bank Holidays are an exception to this rule.)

The charm of the mansion lies in its interior. Much of the decoration is by an eighteenth-century carpenter-contractor named Lightfoot, about whom nothing else appears to be known. The Pink Parlour is so called because of the colour of its walls. Its rococo ornaments are somewhat restrained and it is in the North Hall that the visitor finds the full flowering of Lightfoot's genius. The adjoining Saloon has a plaster ceiling which is almost certainly the work of the famous Stuccoist, Joseph Rose. Other notable apartments include the Florence Nightingale Room (her sister was Lady Verney), the Library and the Chinese Room in which rococo detail mingles with the chinoiserie design and there is a remarkable pagoda-like alcove of carved wood. And perhaps one of Claydon's finest treasures is its staircase of stucco and wood, the joint creation of Rose and Lightfoot.

THE SOUTH WING AT CLAYDON HOUSE : Originally it consisted of three Jacobean brick storeys, but considerable additions and alterations were made about 1768 and again 100 years ago.

THE WORK OF AN UNKNOWN MASTER : The decoration surrounds a niche. It is one of the many works in Claydon by Lightfoot.

MARBLE-CARVING IN THE CLASSICAL STYLE : The white figure is one of the two which stand on each side of the chimney-piece against a background of reddish-brown in the spacious and ornate North Hall.

ON WALL AND STAIRS : This finely-carved head looks down in the North Hall. *On right*—The iron balustrade of the staircase is one of the marvels of the Georgian age. It is so delicately wrought that the ears of corn which mingle with the trellis rustle with the vibration of passing feet.

EDINBURGH 1957— A SUMMING-UP

The Eleventh Festival has Seen Some Splendid Performances and a Highly Controversial Verse Drama

By IAIN CRAWFORD

FOR the Scots, whose national pastime is argument, perhaps the most fascinating thing about the three weeks of Festival held in Scotland's capital city is the discussions which it provokes. Every festival has provided a wrangling-point, an event around which the national talent for " argie-bargie " can flex its muscles. In corners of the elegant Assembly Rooms where Sir Walter Scott confessed to the authorship of the Waverley Novels and which for three weeks becomes a Festival Club, voices are raised, hands saw the air in angry gesticulation, reputations are shredded and theories advanced and defended. As so often in the past, this year the controversy centres around the drama.

AN ITALIAN TENOR AT AN EDINBURGH PRESS CONFERENCE: Nicola Monti (centre), of La Piccola Scala Opera Company of Milan, answers questions put to him by reporters at the Edinburgh Festival Press Bureau. With him are his wife and, acting as interpreter, Mr. Iain Crawford, the author of the article on these pages. Senor Monti received high praise from the critics for his singing of the part of Elvino in *La Sonnambula*.

In presenting *The Hidden King*, a new play by an unknown dramatist, Jonathan Griffin, in an arena stage production in the Assembly Hall which gazes calvinistically over Princes Street from the heights of the old town, the Festival authorities took a bold step. The courage required to mount a new production of a difficult verse-play by a new writer is one of the qualities of enterprise required of Edinburgh programme-planners and it must be saluted. But having done so, anyone who has seen *The Hidden King* must wonder where enterprise and courage end and foolhardiness begins.

The Hidden King is a Shakespearian-type drama based on the story of the lost King Sebastian of Portugal, who led a crusade against the Moors in Africa. In battle, most of the Portuguese nobility were lost and the King vanished. None saw him fall, and the missing King provoked the usual outburst of pretenders to the throne of Portugal. It is with one of these that Mr. Griffin is concerned, the Sebastian who appeared in Venice twenty years after the ill-fated crusade. Portugal is by then an occupied country, a vassal State of Spain. It is the wrong time for a pretender to appear ; there seems no hope for the salvation of Portugal and the stranger who claims he is Sebastian is without resources and without friends. Why has he remained hidden ? the Portuguese refugees in Venice ask. What has he been doing for twenty years ?

To these questions Mr. Griffin gives a misty spiritual answer : " The King had to be hidden or men would not have sought him " ; " The King had to be killed that men may do without him," says Donna Veronica, Sebastian's one concession to tenderness, at the end of the play. Sebastian himself speaks of the need of the young man who was a King to find for himself in solitude and suffering the pattern of majesty. In the end the pretender-King claims to be a pretender and is hanged, rather than stir up the " fear that is hope " in the hearts of his people again. All this takes over three-and-a-half hours, even in the cut version which I saw, from which half an hour had been amputated since the critics flayed the play on its opening night.

Basically, this plot might have served for the writing of a good play, a historical drama with contemporary overtones, but Mr. Griffin has not used his plot wisely. The action is clouded in a jungle of verbiage, alliteration's artful aid stutters across the uncertain rhythm of his verse, elaborate imagery impedes instead of assisting comprehension, and by the time Sebastian is hanged one's only feeling is one of relief for a decisive act which must surely signal the approaching end of the play.

A little scholarly bawdry and a surprising piece of Renaissance imagery about the atom bomb are among Mr. Griffin's concessions to contemporary taste, but they are that only and not in the least relevant to the play. In the programme note the author says : " This is an adventure story in a Renaissance setting and meant to be enjoyed straightforwardly as that." I wonder how long it is since Mr. Griffin read an adventure story in any setting ? A study of the works of Messrs. Ambler, Hammond Innes, Sabatini and Dumas would seem to be compulsory reading for Mr. Griffin before he embarks on his next adventure story. Narrative pace, tautness of thought and sharpness of imagery, tension, pity and tenderness, are a few of the qualities *The Hidden King* lacks, and unfortunately its lush verbosity brought out the worst qualities of English acting in some of the principal players.

Robert Eddison's petulant-mouthed King listening to the reverberations of his own sonority and Robert Speaight rumbling away like an express train on a long run, Pauline Jameson's high-nosed prim passion—these were among the particular trials of a long and unrewarding evening. Why do English actors have to chant and rumble when faced with a verse play ? Why do they divorce the words from the hard edge of dramatic reality that should lie in an actor's voice ? In Michael MacLiammoir Mr. Griffin found an exponent of the art of stage delineation both in speech and action who almost succeeded in making something out of nothing. He pizzicatoed his way through an appalling speech about picklocks and vomiting mirrors with a suave dexterity which was quite spellbinding, and with every movement, gesture and inflexion he created a little world of dramatic reality around him, all the more noticeable for its general absence. Sebastian Shaw did his best with a thankless part as a Venetian bravo with a

IN THE CONTROVERSIAL PLAY, "THE HIDDEN KING": Clare Austin has the part of Fausta and behind her is Robert Speaight who has the role of Don Diego de Brito.

ONE OF THE FOUR OPERAS GIVEN BY LA PICCOLA SCALA OF MILAN: The cast is gathered in a scene in Vincenzo Bellini's *La Sonnambula*. Maria Meneghini Callas sang the part of Amina, the Swiss maiden who sleepwalks with disastrous results to her reputation. The Milan company has been performing for the full three weeks of the Edinburgh Festival, which ends to-night (September 7). Mr. Crawford writes of " the cast whose vocal splendour was matched only by the gay vivacity of their acting."

taste for wine, women and strained imagery, and among the smaller parts there were good performances from Leo Cicero as Cardinal Henry and the Duke of Tuscany and a sharp, astringent study of the Doge of Venice from Scots actor, Iain Cuthbertson.

Leslie Hurry's set and costumes gave the play every chance to blaze with colour and life, and Christopher West moved the pieces on his board with skill and an admirable sense of pattern, but not all this professional skill could save *The Hidden King* from dullness. At a public forum to discuss the discussion of the play the leading actors nobly defended their dramatist with a fervour which says much for their loyalty but little for their sense of theatre. The splendid cadences of his own voice executing verbal coloratura are always satisfying to an actor—that the man in the auditorium should ask for a little sense with his dramatic music is surely not unreasonable?

At the King's Theatre, sense, drama and music were all there. La Piccola Scala, part of the company of La Scala, Milan, took Edinburgh by storm. Here, not once but many times, was the moment of glory for which the Festival was invented. La Callas, greatest of contemporary operatic divas, sparkling like a diamond, visually, dramatically and vocally bringing to life the lovely melodies of Bellini, serene with her superb technique shimmering against the limpid beauty of Nicola Monti's tenor and the full, firm splendour of Nicola Zaccaria's bass or soaring, magnificently certain and free, in the solo arias. Graziella Sciutti, full of charm and vivacity and as pretty as a picture, floating effortlessly through Cimarosa's ornamented vocal line; Franco Calabrese superbly sonorous yet flexible in voice and an actor whom many a prose theatre might envy. In *Il Matrimonio Segreto*, in which Sciutti and Calabrese starred, La Piccola Scala had perhaps its supreme triumph—an elegant, sensitive production by Giorgio Strehler, the brilliant director of Milan's other "Piccolo," the Piccolo Teatro—and wonderful teamwork from a cast whose vocal splendour was matched only by the gay vivacity of their acting.

For La Scala it is all superlatives. *L'Elisir d'Amore* offered a spirited, vigorously pleasant production of this charming opera by another talented young Italian producer, Franco Enriquez, a good-looking and nimble-voiced heroine in Rosanna Carteri and a flood of golden tone from the tenor, Giuseppe di Stefano, whose heady, virile lyricism threatened to destroy Edinburgh's tradition of "no encores."

As always, La Scala Orchestra played superbly under Sanzogno and Antonino Votto. With another company, *La Sonnambula* might have suffered from having the scenery designed for La Scala compressed into the backstage space of the King's Theatre, but with Callas, Monti and Zaccaria the constricted, somewhat conventional scenery did not matter. This visit was *real* Festival leaving behind a cluster of unmatched memories—Callas's final aria, the grace and charm of Graziella Sciutti, the elegant power of Calabrese, the lyric passion of di Stefano, the tender warmth of La Scala's strings. As with the Piccolo Teatro last year, so, this year, La Piccola Scala made everything else seem a little second-rate.

The Bavarian Radio Orchestra under Klemperer and their resident conductor, Eugen Jochum, were, however, exceptional. This comparatively recently-formed orchestra played with a power and a tenderness which places it firmly among the half-dozen orchestras in Europe. In Klemperer we have to-day's ideal Beethoven interpreter, and to say that the orchestra proved itself in every way worthy of its conductor is to give high but merited praise.

The Royal Swedish Ballet, after some dull opening pieces, offered a splendid new ballet in Birgit Cullberg's *Miss Julie*, danced to some very interesting music, "Ture Rangstrom." The night on which I saw this ballet the principal roles were being danced by the Swedish company's second eleven—Gerd Anderson as Julie and Teddy Rhodin as Jean—but if the others were any better, then they must be in a class of their own. This was modern ballet within its convention presented with a fine dramatic sense and beautifully danced.

The Ballets Africaines—for whom the question of pigmentation seems to have allowed liberties not permitted to paler skins—offered a stimulating evening of brilliantly controlled ritual dances performed by bare-breasted maidens and men of fantastic agility.

And then, of course, there was Miss Russell. As anticipated, she took the Festival on singlehanded—and won hands down. Attired in flame, she stuck a relentless satirical spear into every kind of musical event within a mile of Edinburgh town—and at half-past midnight, Edinburgh, with its ribs aching, was asking for more.

Glory, drama, argument—these are the great ingredients of the Edinburgh Festival, and they are all here this year. Not all the gambles came off, but the ones which did were worth all the others. I, for one, would be happy to see next year's Festival planned on equally enterprising lines, taking the percentage of success or failure as it comes. The only really harsh thing about the Festival is the forty-nine desolate weeks until the next one.

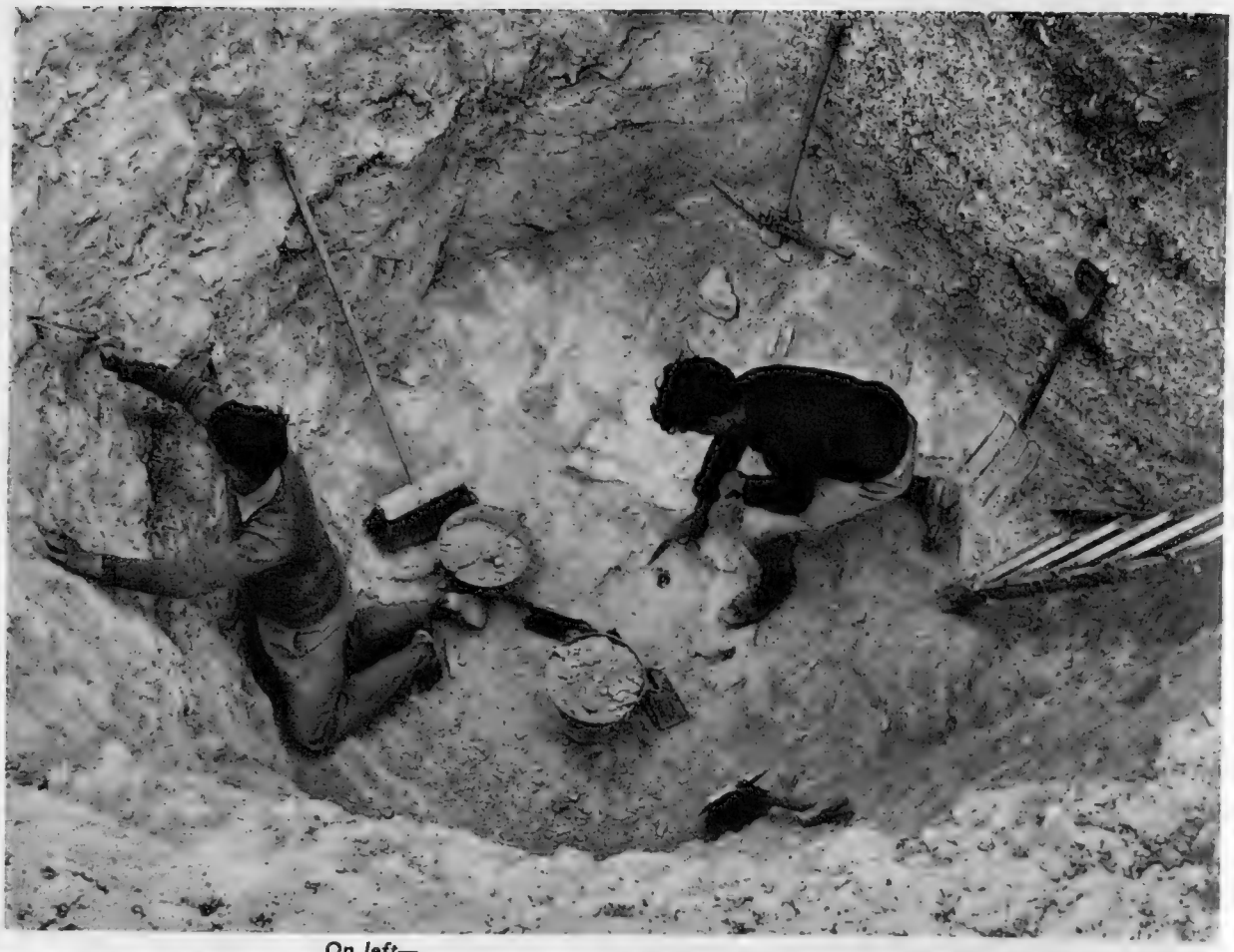
AT THE ASSEMBLY HALL: Leo Cicero (the Grand Duke) (left) and Ernest Thesiger (the Cardinal of Pisa) in *The Hidden King*. Jonathan Griffin's verse drama was given its world premiere at the start of the Festival. The plot concerns a Renaissance King of Portugal who was believed to have been killed in battle but, twenty years later, appears in Venice to claim his throne. He renounces it to avoid civil war. The play has been severely criticised both for its length and construction.

AN OUTSTANDING MUSICAL OCCASION: Sir John Barbirolli conducts the Hallé Orchestra, which opened the music programmes at the Usher Hall. Among the other fine orchestras heard this year have been the Bavarian Radio Symphony Orchestra and the Philharmonia Orchestra. The Concertgebouw Orchestra of Amsterdam is giving the final concerts of the Festival.

A BRITISH PREMIERE BY A UNIVERSITY DRAMATIC GROUP: Vernon Dobtcheff (right) is seen as the President of the Court in Ugo Betti's *Corruption in the Palace of Justice*. The play was given its premiere in Britain during this year's Edinburgh Festival by the Oxford University Theatre Group in Gullan's Close. Other student dramatic companies have also been at the Festival.

DIGGING UP THE PAST

Archæological Research in Britain; and "Healing" Water in Cheddar Caves



On right—

A FAMILY BURIAL VAULT OF 4,000 YEARS AGO: Excavating a Neolithic Age long barrow at Earlswood, near Salisbury, are John Wakefield (left) and Nicholas Wood, both Cambridge undergraduates. Mr. Wakefield is working on the chalk wall of the grave-mound and Mr. Wood on the floor some 14 ft. below the surface. They are members of a team directed by Mr. Paul Ashbee, under the auspices of the Ministry of Works, which is carrying out one of the first excavations of a Neolithic long barrow in the Salisbury area for a quarter of a century. The roughly-hewn nature of the Neolithic working is typical of the period and contrasts with the smoother surface of the later Bronze Age barrows excavated by Mr. Ashbee last year. Among the finds have been the bones of a Stone Age ox, evidence of ritual feasting before a body was placed in the barrow. This type of long barrow may have contained megalithic chambers in which the bodies rested and was probably designed as a family or tribal vault.

On left—

DISCUSSING A FIND: Near Scarborough, in Yorkshire, Tony Pacitto (left), an archæologist from Helmsley, and Peter Fowler, a student of Oxford University, examine some stonework which they have unearthed on what is believed to have been the site of a Neolithic or early Bronze Age settlement. Possibly these were the bases of pillars. A team of four young archæologists, sponsored by the Ministry of Works, has so far dug up here a number of interesting relics. They include a prehistoric earthenware beaker estimated to date from 1900 B.C. and several human skeletons in comparatively good condition. The many archæological excavations being made this summer all over Britain are evidence of increasing interest in this form of scientific research.

AN UNDERGROUND "SPA"? Mr. Gerald Robertson, the manager of Gough's Caves at Cheddar, in Somerset, dips his hand into a natural basin shaped like a font, which is filled by drips of water from above. It is claimed by a couple living in Wales that this water has healing properties. Recently, Mrs. Dorothy Fell, of Llandudno, stated that twenty-five years ago she visited the caves and placed a finger with a bad gathering on it into the water in the font. When she withdrew her hand no mark remained on the finger. Further, says Mrs. Fell, since last January she has been giving her husband, who suffers from duodenal trouble, small doses of water sent from the caves, and he has benefited from them. According to Mr. Robertson, the water which drips from limestone stalactite formations must be very rich in minerals. But, it is understood, it has not been analysed nor hitherto considered to have curative properties.

On left—

NEW EXCAVATIONS AT VERULAMIUM: Digging is in progress on a site in the remains of the Roman city at St. Albans. Under the direction of Mr. S. S. Frere, of the Institute of Archæology, over 100 students are working at Verulamium during their vacation in order to gain practical archæological experience.

INDEPENDENT MALAYA

The Federation Becomes A Sovereign Member of the British Commonwealth

THE HEAD OF STATE IS SWORN IN: The Yang di-Pertuan Agong (left), or King, of the Sovereign Malayan Federation reads the oath of office during his installation in Kuala Lumpur. Next to him is the Deputy Agong, Sir Hisamuddin Alam Shah, the Sultan of Selangor. The Agong, Tuanku Sir Abdul Rahman, is the Ruler of Negri Sembilan. Under the new federal agreement Malaya became independent last week-end and was proclaimed as a "sovereign and democratic state founded upon the principles of liberty and justice." The country is the tenth full member of the British Commonwealth of Nations and was welcomed to its new status by the Duke of Gloucester, on behalf of the Queen. However, Britain still has defence commitments in Malaya and aircraft and troops from other members of the Commonwealth took part with Malayan forces in the military parade which was held during the independence celebrations.

THE ARRIVAL OF THE DUKE OF GLOUCESTER: He is followed by the Duchess of Gloucester as they leave the Britannia airliner which brought them to Kuala Lumpur. He represented the Queen at the Independence ceremonies

A ROYAL INSPECTION: The Duke of Gloucester inspects the guard of honour of the Malay Regiment. Behind him is Sir Donald MacGillivray, the last British High Commissioner, who returned home last week-end.

THE PRIME MINISTER: Tunku Abdul Rahman speaks at the opening of the Freedom Stadium in Kuala Lumpur. Formerly Chief Minister of the Federation, he is now its first Premier.

A SCENE OF COLOUR AND SPLENDOUR: The Yang di-Pertuan Agong and his wife, preceded by mace-bearers, walk in procession to the ceremony for the installation of the Head of the State on the lawn outside his official residence. The Agong, Sir Abdul Rahman, aged sixty-two, was called to the Bar in London thirty years ago.

The World of Books

THE FAR-OFF NINETEEN-TWENTIES

Michael Stewart's Nostalgic Story; Other New Novels, with Settings in Britain, Ireland, America and Hong Kong; Some Lively Thrillers

IN A USE OF RICHES (Gollancz. 13s. 6d.) Mr. J. I. M. Stewart wafts us back to the early '20's, before, that is, they began to roar. The most popular fiction of the day was being ladled from the lapidary pen of John Galsworthy: the Master of Lamb House brooded benignly over the literary scene; the ecstatic prose of George Moore was balanced, in the drawing-rooms, against the robust vulgarities of Arnold Bennett. The Book Society was about to be born.

It is not for nothing that the banker, Rupert Craine, on his way for a chat with his favourite art dealer, thinks of old Soames Forsyte. The novel progresses in that easy, comfortable, well-heeled tempo until Michael Innes looks over the author's shoulder and stirs the characters into the kind of action in which morals, even in the contemporary sense, go overboard and there is even a hint of bigamy.

I enjoyed this novel immensely, principally because I find a nostalgic comfort in this style of writing, because the characters, though alive, bear no relation to the realities of life in 1957 and because of the incredible conversations between two schoolboys, embryo Wykehamists, due for a New College that is dead even if it won't lie down.

THE PHILADELPHIAN (Hodder and Stoughton. 16s.) is a mannerly novel, too, though its setting is so essentially American. Mr. Richard Powell has traced the antecedents of a rich young lawyer, born and bred in that city but having come to his eminence through the devoted efforts of a mother, a grandmother and even a great-grandmother. Whether he is typically a Philadelphian it is difficult to judge from this distance. What one can assess is that he is a likable creature, running true to the form of the city of brotherly love and with a far from atrophied conscience. In more than one way this is a highly moral tale, for throughout the career of Mr. Powell's hero the decisions which he has made on grounds of moral obligations have almost always brought him a couple of steps—and once or twice a whole ladder length—nearer his eventual fortune and position. He misses being a prig but he might not be a boon companion. A solidly readable book, though.

THE STORY OF WILLIE SYME (Hutchinson. 12s. 6d.) is told by Mr. Roland Pertwee, novelist, playwright, TV and film script writer; in other words, an author of invention and variety. These qualities are at their bright best in his new novel which is a lively piece of work about a bad painter whose greatest achievement was in convincing the public and some of his friends that he had at best a streak of genius and at least an original kind of character. Mr. Pertwee's style is as smooth and sparkling as a summer sea and his excursion into mock-biography thoroughly successful.

Mr. Walter Macken has written about another kind of artist in SULLIVAN (Macmillan. 15s.), which is the story of an Irish actor and indeed a story about Ireland itself, from the western town of Galway to Dublin. Visits to London and even to New York seem incidental, for it is not only Sullivan, the boy who has acted since he could speak, but his friends in the little and great theatres, his family and the background they share that are the memorable things about this tender and evocative story.

The next two novels have in common the setting of Hong Kong and they also share a quality of compassion, but in every other respect they are distinct and indeed contrasted stories. FERRY TO HONGKONG (Hutchinson. 15s.) is Mr. Simon Kent's tale about an American tramp whom no one except the police seems to want and who appears doomed to travel perpetually to and from on a ferry-boat between Hong Kong and Macao. Both the exotic, often sordid scene and the constantly shifting pattern of the tired old ship's passengers and crew are admirably conveyed, and although Mr. Kent writes with little subtlety he brings a native force to the telling of the story that swings it along at a great pace.

THE WORLD OF SUZIE WONG (Collins. 16s.) is by Mr. Richard Mason, who wrote that exceptional book, *The Wind Cannot Read*, and whose understanding of the Far East, not as a vast political problem būt as a sphere peopled rather too closely with human beings, is equally unusual for a man still in his thirties. The Suzie of whom he writes here belongs to the waterfront and specifically to a ramshackle hotel where sailors go to find girls. A young English painter decides to live there for a time and, in painting the place and its inhabitants, comes across Suzie, with whom he falls deeply in love, as she with him. Between them and happiness are two very obvious barriers and Mr. Mason writes of these and of their final conquest without sentimentality but with a most effective tolerance and warmth.

SPEAK TO THE WINDS (Heinemann. 16s.) is a novel that is as much about the weather as about the people who endure it. Miss Ruth Moore has written about an island off the coast of Maine on which lives a small community of people who are not only dependent on tides and winds, sun and storm in going about their ordinary business, but whose very characters have been shaped by its asperities and its occasional relentings. Greeks, Portuguese, Italians or Scots, they are all American first and foremost. The author, who was herself brought up in such a place where her family had lived for five generations, brings her experience as well as her rare talent for conveying speech and mannerisms into this tale of fishermen, farmers and many other ordinary folk brought together in a far from ordinary situation.

THE WRITER OF A CONTROVERSIAL SOVIET NOVEL: Vladimir Dudintsev is the author of *Not on Bread Alone*, which is to be published in English at the end of this month by Hutchinson. The translator from the Russian is Dr. Edith Bone. *Not on Bread Alone* tells of a Russian inventor's fight against Soviet bureaucracy and carries implied attacks on certain features of Soviet Communist society. In speaking this summer to meetings of writers and Party activists on the subject of Stalinism, Mr. Khrushchev is reported to have said that Dudintsev's novel "took all the negative facts (of the Stalin regime) and reflected them with unfriendly positions." He added that he believed the writer, "with our help and his wish," could "find the right path again."

And so to a large and lively selection of crime stories, each of them worth recommendation. HOUSE OF NUMBERS (Eyre and Spottiswoode. 12s. 6d.) is by Mr. Jack Finney, and even to a reader who would far rather *not* read stories about prisons, proved genuinely exciting. This is the story, briefly, of a man whose brother is in the redoubtable San Quentin gaol and who plans to help him escape. The project is meticulously planned and executed and far be it from me to tell you whether this daring attempt succeeds or not.

I met a man once who told me he had spent a fortnight in Toronto and that was on a Sunday afternoon. Miss Margaret Millar, who is apparently a native of those parts, enlivens the scene with an ingenious thriller, THE SOFT TALKERS (Gollancz. 12s. 6d.). "When Galloway referred to his friends as a group he usually called them 'the fellows.'" Fairly solid citizens of Ontario, they were in the habit of going off for a week-end's fishing and drinking at Galloway's "lodge" somewhere up on one of the lakes. Their wives took varying views of these activities. On one such binge the host failed to turn up and not even his best friend could find him. Piled upon this came trouble among the wives. It all culminated in a surprise ending which the author skilfully leads to on almost the last page. I rate this as one of the better thrillers, even though the characters appear to be a dull lot.

Nero Wolfe and his chirpy henchman, Archie Goodwin, are a "must" for any addict and Mr. Rex Stout's latest is MIGHT AS WELL BE DEAD (Crime Club. 10s. 6d.). To that house of exotic orchids and even more exotic cooking comes a Nebraskan tycoon willing to pay Wolfe a hefty sum to find his missing son whom he had once accused of theft and kicked out but now, knowing him to be innocent, wants to make amends. When he comes to be found as a convicted murderer the plot gets thick and sticky enough for Wolfe to get into one of his contests with the District Attorney and the police, for Archie to be embroiled with a curvaceous type and for the usual illuminating conference in Wolfe's office. This may not be vintage Stout, but it is nourishing to those who love it.

Mr. James Fox is a new name to me and FREE RIDE (Cassell. 12s. 6d.) has a fresh, tough urgency about it which admirably suits its theme. A man is being extradited from New Orleans to Los Angeles on a manslaughter charge. Two detectives knowing all the answers, one of them handsome enough to engage the attentions of two easy-on-the-eye females, run into all sorts of adventures on the train including sluggings, neckings, carousing and winding up with a free-for-all in the best Western tradition. Those unable to dig the latest in American slang might have a hard time with this book but those who can will love it.

A small town on Lake Michigan with a beastly climate and people to match is not the most exciting background for a thriller, but Miss Helen Nielsen sets suspense and a surprise ending really effectively into THE CRIME IS MURDER (Gollancz. 12s. 6d.). Above the ordinary run of books of this kind for its literacy and its characterisation.

Vernon Vane

KIDNAPPED IN CHINA

An Engineer's Adventure in Shensi

A quarter of a century ago Sigurd Eliassen, a Norwegian engineer, went to the Shensi Province of China to undertake an irrigation scheme based on the Yellow River. Those were the days when Chiang Kai-shek was rivalled by such claimants to power as "the so-called Christian General," "the Stormy Petrel of the Far East," and many another leader of a private army. Some had discovered the political advantages to be gained from cloaking their banditry under the name of Communism, and it was by a Communist group that Mr. Eliassen was held to ransom and narrowly escaped with his life. From its start the irrigation scheme was doomed to failure in the prevailing atmosphere of civil war, intrigue and sabotage. The Norwegian tells his story in DRAGON WANG'S RIVER (Methuen. 21s.). Into the background of a thoroughly corrupt society he fits a remarkable range of characters, all drawn with a deep understanding of the Chinese mentality. It all happened twenty-five years ago. But reading about it now, one wonders how much the China of Mao Tse-tung has really changed.

H. W. Tilman is another name to be recalled from the 1930's, for then he led expeditions to the Himalaya and many giant peaks elsewhere in the world. Three years ago he was able to combine his love for mountaineering with his other great interest, sailing. In a converted Bristol Channel pilot cutter (appropriately named *Mischief*), Mr. Tilman took a small expedition across the Atlantic and round the Horn to the south of Chile. They landed in a rarely-explored region and crossed the Patagonian ice cap to the Argentine Lakes. Therefore, MISCHIEF IN PATAGONIA (Cambridge University Press. 21s.) has the double appeal of great adventures on sea and on mountains. The author writes with delightful wit which adds to an altogether excellent book.

Archæology is certainly one of the most adventurous of sciences and it was a happy idea of Lady Wheeler to collect into one volume some of the most exciting incidents in the business of digging up the past. A BOOK OF ARCHÆOLOGY, selected and edited by Margaret Wheeler (Cassell. 12s. 6d.), is sub-titled "Seventeen Stories of Discovery." We are taken from Britain (Stonehenge and Sutton Hoo) to France, Denmark and the Frozen Mammoth of Siberia, to Pompeii, Chile and, of course, to the Middle East. Each chapter is chosen from a book by an expert and most of the contributors took part in the incidents they describe. An original contribution by Dr. O. G. S. Crawford on "Archæology from the Air" explains what valuable results can nowadays be obtained by archæologists in surveys from aircraft. In some ways this is the most interesting of the many interesting sections.

In spite of hydro-electric schemes and cultural festivals, there are parts of Scotland which remain still remote and gloriously isolated. In the Central Highlands Henry Tegner spent years stalking a strange, malformed red deer stag through the most rugged country. THE TALE OF A DEER FOREST (Bles. 18s.) is his account of how he pitted his hunter's skill against this wary beast. Frank Wallace's illustrations add to the pleasure of the many who will want to read this book.

The Regional Books, which have also been given the somewhat pretentious title of "Vision of England,"

A GREAT VICTORIAN

Mary Kingsley, of a family of writers whose originality and humanity have delighted generations, crowded into the last years of a very short life the revelation and achievements of the power that was in her. She was one of a generation of great Victorian women, outstanding for iron determination, rigid virtue, great intelligence and wide humanity, such as George Eliot and Florence Nightingale, but she was more modern than they. She neither preached nor tyrannised nor prejudged.

Her life is treated most admirably by Cecil Howard in MARY KINGSLEY (Hutchinson. 21s.). Her youth was wasted by family conditions beyond her control. When her chance came she left England for West Africa, and Africa held her. She explored unknown wastes and jungles, in fearless curiosity; investigated without condemnation the tribal customs of savage races; witch-doctors and cannibals received from her an unprejudiced investigation and made her pen—for she was a born writer—as pungent in criticism of white men's intervention and exploitation of native peoples as of the ignorance and superstition she met with.

She was generations ahead of her time. She appreciated that the only way to self-determination and advancement of primitive peoples was on a basis of equality and mutual benefit from trade, and such was her humanity and breadth of mind that nothing could shock her nor surprise her. Her West African studies and travel books are as alive to-day—and as modern as when they made her famous. She died, nursing the Boers in the South African War, before she was forty. She had used her great talents to the full in a full life crammed into a dozen years.

GOSSIP AND SCANDAL

It is no compliment to Sir Arthur Bryant to rank Prince Pückler with him as the greatest exponents of the Age of Elegance. Pückler was not one who "verifies his references." If he could write well on the theatre, the clubs, gardens and great houses of the England of the Regency and after, his social gossip was uninformed, sometimes reckless and malicious. He never questioned the "stories" he picked up (e.g., the Ladies of Llangollen) however improbable.

He came to England first in 1814 when still owner of a minor German principality, and he jotted down his observations in letters home. Some years after, he lost much of his territory and arranged a divorce with the wife he loved (Countess Pappenheim) in order that he could return to England to find a marriageable heiress in 1826. He tried hard and failed, his reputation travelling with him. He continued to send his impressions to his former wife. One of the victims of his caddish charm was Sarah Austin, wife of the grave jurist, and herself an admired friend of many great Victorian men of letters. Between them, he and she so cooked, edited, emasculated with asterisks and otherwise disguised his scribblings that an English translation took the town by storm in 1832. It was highly praised by Goethe out of malice and (incredible as it seems) raised as great a storm as did the sober Greville Memoirs later on; and Pückler's reckless pen paid him better than his rakish charm. In A REGENCY VISITOR: THE LETTERS OF PRINCE PUCKLER MUSKAV (Collins. 21s.) Miss Butler has now carefully and commendably re-edited a part of the original book. A great number of the blanks have been filled, but (though I say it as shouldn't) she might perhaps have benefited more by the help she received. A gossip memoir demands the fullest index and few of her readers will need to be informed about Queen Anne, Byron, Cromwell and Henry VIII. There are some errors, and the last lines of her introduction in particular escaped proof-reading. The book is not lacking in sparkle and it is fair to say that Bryant quoted Pückler on industrial conditions. But, set beside Pückler, Creevey emerges as a Trevelyan or a Morley.

John Gore

are in a class of their own. They are not intended as Baedeker-type guides. Rather they are discursive essays, with much out-of-the-way historical, architectural and generally topographical information. The authors look at things from original angles. This is certainly true of the latest addition to the series, SOUTHERN ENGLAND, SURREY-SUSSEX, by Ralph Lawrence and Reginald Turnor (Elek. 21s.). One is astonished at one's ignorance of the towns and countryside near to London, and even so familiar a scene as Brighton front is given a new look by some charming reflections on its variety of hotel architecture. One could wish, however, that the authors had found time to divert themselves from the Pavilion to the Lanes, which surely are one of the most rewarding parts of Brighton.

SEA ANGLERS' FISHES OF NEW ZEALAND, by Arthur W. Parrott (Hodder and Stoughton. 18s.), might appear at first sight to be a book for experts. In fact, when one has read the opening chapters on the nomenclature of fishes and fish anatomy, one begins to taken an avid interest in any fishmonger's slab. Such is the skill in exposition of the author, and one reads on with great enjoyment about the many spectacular fish which inhabit the waters round New Zealand.

FLAMENCO DANCES IN SOUTHERN SPAIN

FLAMENCO DANCING AT A SPANISH PARTY: Antonio, one of Spain's most celebrated Flamenco dancers, performs a Fandanguilloa at a party given by the Duchess of Alba in Seville. The Fandanguilloa is one of the many types of Flamenco. As is the case with almost all these folk dances, the accompaniment is by guitars.

Below—

GRACE AND RHYTHM: A Spanish gipsy girl waves a scarf in the air as she dances the Buleria. The music is provided by a guitarist. Other accompanists tap out the rhythm with their hands and feet. For this purpose the seated male dancer is wearing high-heeled shoes. The gipsies are the chief exponents of Flamenco dancing.

CELEBRATIONS IN THE ANNUAL SPRING CARNIVAL IN SEVILLE: With skirts swirling, a group of Sevillan girls dance the Sevillanas, another type of Flamenco, during the annual spring carnival, in the capital of Andalusia, in Southern Spain. Flamenco dancing requires almost as great a discipline and training as that of classical ballet.

Spain is a land renowned for its dances. Indeed, they have religious as well as secular significance. For instance, at the Corpus Christi Festival in Seville, there is dancing before the High Altar in the cathedral. But such occasions are rare, and it is secular dancing which most visitors see.

In Seville and in Andalusia, in general, among the most popular folk dances are the traditional Flamenco or gipsy styles. The origin of Flamenco is rather obscure but some authorities consider that its forms were originally brought from India via the Balkans and Central Europe. The word "Flamenco" probably means "Flemish" and is thought to derive from the time when the Netherlands and Flanders were part of the Spanish Empire in the sixteenth century. Flamenco music shows a strong Moorish influence.

The dances require a training almost as long and as rigorous as that for classical ballet. They are chiefly learnt in the homes of the Andalusian gipsies, but are only performed outside Spain by professional dancers. Foreigners very rarely master them. The music for these dances, of which there are over fifty different styles, is usually provided by guitars with an accompaniment of clapping of hands and tapping of feet.

The best-known of the Flamencos is probably the Sevillanas, which is rather formalised and entails a great deal of arm movement. One of the most arduous is the Zapateado, with its impressive heel-tapping, which is slowly worked up to a quick-moving and very furious crescendo. It is also among the most technically difficult, requiring a very precise discipline of the muscles. An exponent of it who is well known outside Spain is Antonio. He has several times visited London with his troupe.

A notable feature of these Spanish dance forms is that the steps are carried out almost entirely in one spot; the performers scarcely move across the floor at all. Another interesting aspect is the traditional and distinctive costumes. The men wear high heels and the women, with tall, ornate combs in their hair, have beautiful flounced dresses, which have often been handed down from generation to generation.

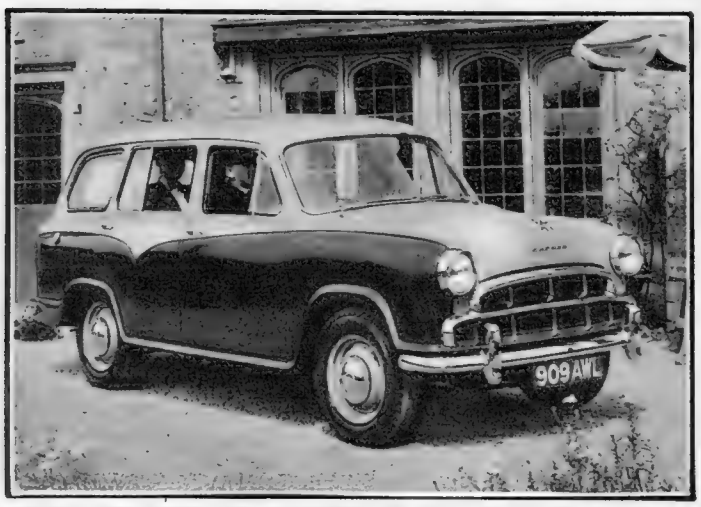
THE A.A.'s CONTINUED SUCCESS

Since its Inauguration Fifty-two Years ago the A.A. has Helped Thousands of Motorists—yet the Annual Subscription has Never been Increased

By "THE SPHERE" MOTORING CORRESPONDENT

THE little yellow badge with the A.A. monogram is now fitted to 2,000,000 vehicles in Britain. When the Automobile Association was formed fifty-two years ago to protect pioneer motorists from the police speed traps it had only 100 members. It took four years for the membership to grow to 10,000. It seems only yesterday we were congratulating the A.A. on enrolling its millionth member—Princess Anne, daughter of the Association's enthusiastic president. Yet here we are, only seven years later, placing on record the signing on of the A.A.'s two millionth member. The odd thing is that the Association's annual subscription has never once been increased in its fifty-two years' history. It has always been two guineas. Yet to-day members have the benefit of a country-wide radio network, maintained at considerable expense to get help to members quickly when they break down. And that is only one of several big and expensive A.A. developments over the last few years. For instance, they operate a spotter aircraft to aid traffic control and to help minimise congestion.

I suppose the time must inevitably come when rising costs will at last overtake the Association's expanding income; when a subscription rise can be staved off no longer. Reference was made to this possibility at last year's annual meeting of the Association, but a pledge was then given that there will be no increase for at least two years. The A.A. is the world's biggest motoring organisation. Similar organisations in a number of other countries have been modelled on the A.A. The important place it occupies in British motoring can be seen when its 2,000,000 membership is related to the total number of motor vehicles in use in Britain—7,000,000, including nearly 4,000,000 cars.



SUITABLE FOR WORK AND PLEASURE: The new all-steel Morris Oxford Traveller Series IV combines modern body styling with obvious sturdiness and should appeal to those who require a car for work as well as pleasure. The four doors give a saloon style comfort.

British motorists will be delighted to learn that the British motor industry is paying more and more attention to fuel economy. I realise this statement may provoke roars of laughter from disillusioned owners of cars with a maddening thirst for petrol. I make it, though, on the authority of Mr. Albert Fogg, director of the British Motor Industry Research Association, who runs the admirable automobile research establishment at Lindley, near Nuneaton. Mr. Fogg is reported to have stated in New York that "rather than inventing new body styles the industry was placing more importance on the need to discover new ways of reducing fuel consumption." He added that it would be safe to say that the present research in the field of fuel conservation would result in a reduction of up to 30 per cent. in the fuel consumption of British cars in the near future.

I hope Mr. Fogg has been misreported in his reference to styling. I hope the industry will continue to regard this subject as one of the greatest importance. It won't sell many cars, however economical they are, if they are ugly or even old-fashioned. But I do hope Mr. Fogg isn't exaggerating when he predicts, in effect, that cars which to-day we regard as 30 m.p.g. models may soon be doing nearly 40 to the gallon.

Another link with Riley history was broken the other day when the British Motor Corporation announced a new 100 m.p.h. Pathfinder saloon. It looks very much like the old model, but the famous Riley 2½-litre, 4-cylinder, twin-camshaft engine has been replaced by the B.M.C. Series "C" unit. This is the 6-cylinder, 2,639-c.c. engine which also powers the Austin A.95 and A.105, the Morris Isis and the Wolseley 6/90. In the Pathfinder the high-performance version of this unit is being used. With a compression ratio of 8·3 to one and using twin carburetters it develops 101 b.h.p. at 4,750 r.p.m. Riley enthusiasts will lament the passing of the 4-cylinder, overhead-camshaft engine which has powered a succession of Riley models, but B.M.C. could not justify the production costs of a separate Riley engine.

The Series "C" engine is a well-tried unit and I should imagine it gives the Pathfinder a more flexible performance. The new Riley has greatly improved brakes and the front end has been slightly modified. The traditional Riley radiator grille has been "flattened" and it no longer lifts bodily with the bonnet lid. The dummy radiator cap has been dispensed with, too. The price of the Pathfinder is unchanged at £940 basic, or £1,411 17s. with purchase tax. The Borg-Warner overdrive is available for an extra £63 15s., including tax, and fully automatic transmission of the same make may be had for an extra £172 10s.

Another new B.M.C. model just announced is the Series IV Morris Oxford Traveller. The polished timber framework of the estate car it replaces has been superseded by an all-metal body with a single rear door which hinges along its upper edge. Basic price is up by £16 and the new station wagon costs, with tax, £1,002 17s.

Is it my imagination, or are motorists as a whole getting more selfish? I ask the question because during recent holiday motoring I came across more cases than usual of the "I'm all right, Jack" mentality. It takes several forms. One of the worst is bad parking in street or road. Laziness and thoughtlessness come into it, too. I am appalled at the number of motorists who leave their cars for long periods at the side of busy roads, causing a good deal of inconvenience to other road users and not a little danger. In many of these cases it would have been an easy matter to pull off the road, but that would have entailed walking a few yards and that, to many drivers, is anathema. I think careless parking of this nature causes far more trouble and danger than many cases of speeding for which motorists are prosecuted. Much more effective use could be made of the country's undersized fleets of police cars if they concentrated on the careless and selfish parkers. A few sharp fines might help.

Other forms of lazy, selfish driving which seem to be increasing include crown-of-the-road crawling, failure to keep an eye on the driving mirror, refusal to give proper signals, reluctance to pull in to let faster drivers overtake in full safety, poor traffic lane discipline and ill-mannered behaviour in car parks. Under the last-named heading I place the willingness of many drivers to leave locked cars in unauthorised positions in car parks already full, thus blocking the path of vehicles whose owners often want to get away earlier than the drivers of the offending vehicles.

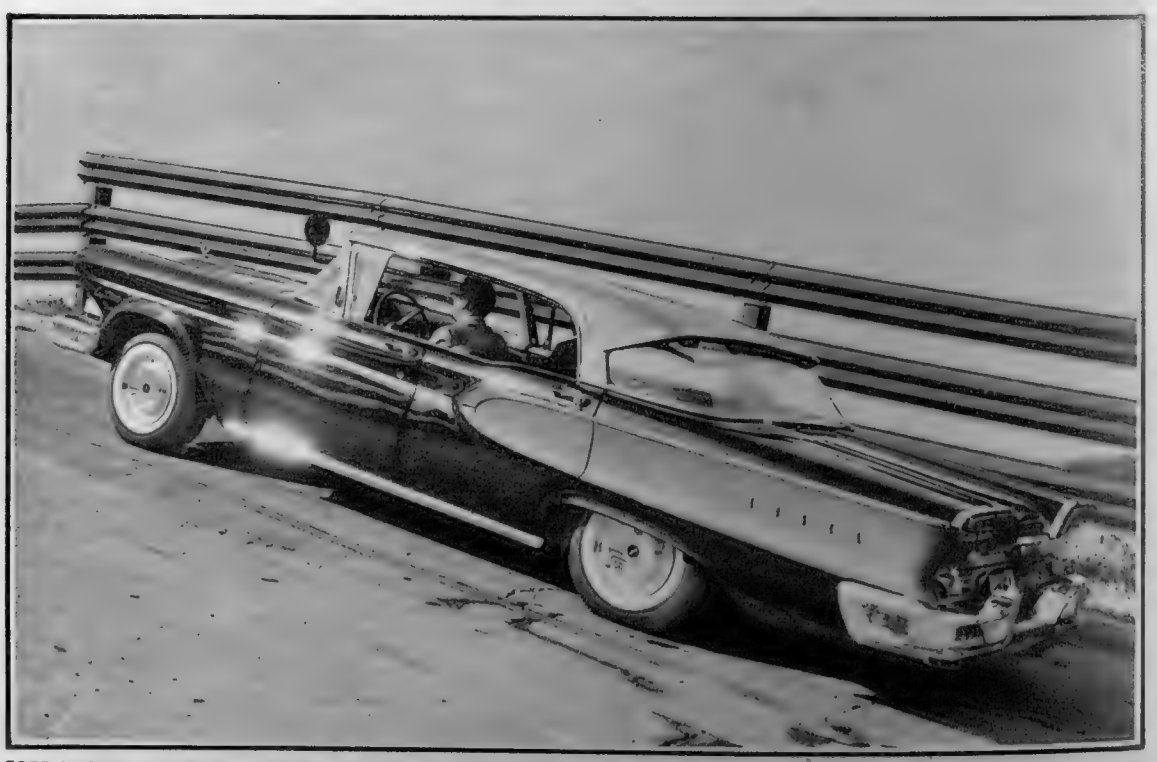
Stirling Moss, after having more than his fair share of bad luck earlier in the current motor-racing season, has struck a golden patch. Following his victory in a British Vanwall in the European Grand Prix at Aintree he won the Pescara Grand Prix in Italy and then flew to Utah to set up several international speed records in an M.G. on the Bonneville Salt Flats. Those of us who know Stirling well and have followed his career with close interest could wish him no happier prelude to his forthcoming marriage.

At Pescara Moss again drove a Vanwall to victory and the only regret Mr. Tony Vandervell can have had over his car's first Continental win was the absence from the race of the full Ferrari team. There was only one Ferrari in the race: a car specially provided for the Italian driver, Luigo Musso. Signor Enzo Ferrari is still very sensitive about road racing in Italy following the impounding of his Mille Miglia sports cars after the de Portago crash; and he let Musso have a car merely because he was running second to the great Fangio in the world championship. It did not do Musso much good in that respect, for he had to retire with a split oil tank and Moss, gaining eight championship points for winning and another for doing the fastest lap, pushed the Italian into third place in the championship. At Pescara the successful Maserati team was present in force and Juan Fangio, world champion for the fourth successive year, who had driven Maseratis to victory at Buenos Aires, Monaco, Rouen and the Nurburgring, had to be content with second place. The last of the championship races takes place this week-end at Monza, in Italy. Will a Vanwall win again against the full might of the Maserati and Ferrari teams in Italy's own temple of motor-racing?

For the first time in England police are using radar speed meters to trap motorists going faster than the law allows. This Atom Age successor to the stop-watch has been adopted by the Lancashire Constabulary, whose attitude towards motoring has long been as liberal as the road policy of the County Surveyor and Bridge Master. In using the "magic eye" of radar the Lancashire Force has brought down on its head a storm of criticism in which the word "un-English" has frequently been heard.

What 's wrong with these radar meters anyway? The worst that can be said of them is that they are not much good when the vehicle they are timing is mixed np with other traffic. It selects its "target" on the basis of bulk rather than speed. A car is coming along fast and the police operating a radar speed meter decide to time it. All goes well, and the tell-tale needle is indicating, say, a steady fifty miles an hour until the car overtakes a lumbering lorry. At this point the radar device loses interest in the speeding car and starts timing the lorry. It has been rightly pointed out that there is some confusion of thought in this widespread denunciation of radar's robot timekeepers.

What most people are criticising is not the radar device but the speed limit itself and, to a lesser extent, the action of the police in operating any kind of speed trap. Well, should the 30 m.p.h. limit be scrapped, or not? I say definitely not. It must obviously be retained as long as so many accidents, many fatal, occur in built-up areas. All the same, I do not agree with the present arbitrary system of defining built-up areas.

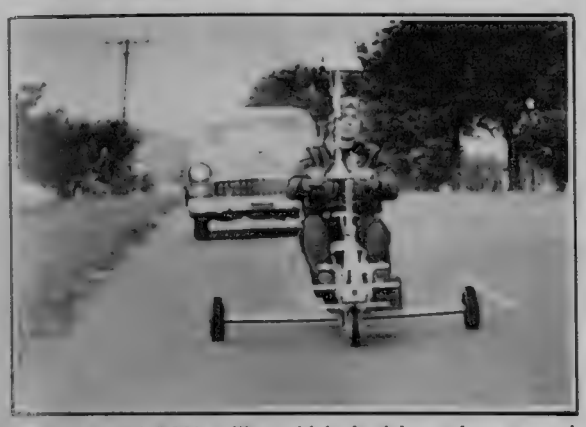


FORD PRODUCES A NEW AMERICAN CAR: After months of preliminary publicity in America, the Ford Automobile Company have shown their new car. Known as the Edsel, it is made in eighteen models and four series. The car has a wide variety of bodies, including saloons, hardtop saloons, convertibles and no fewer than five station wagons.

AN IDEAL MEANS OF TRANSPORT

An American "Gyrocopter" which can be Used as Aircraft or Car

A HELICOPTER MOTOR-CAR : Igor Bensen sits in the "Gyrocopter," which he designed himself, in Raleigh, North Carolina. This 200-lb. craft, which has an air speed of 80 miles an hour, can also be driven along roads at up to 30 miles an hour, like an ordinary car.



ON THE OPEN ROAD : The vehicle is driven along a road leading into Raleigh. When on the ground, the rotor blades are held firm over the top of the machine.

THE DUAL-PURPOSE VEHICLE IN THE AIR : The "Gyrocopter" flies about 100 ft. above the ground. It is powered by a 40-h.p. 4-cylinder engine and has a horizontal rotor, which continues to spin freely if the engine fails.

A machine which can easily be flown as an aircraft and also be driven like a motor-car along ordinary roads has for a long time been the ideal vehicle in the imagination of many people. Now it has been invented at Raleigh, North Carolina, in the United States. Igor Bensen's "Gyrocopter," which weighs only 200 lb., can be flown at a top speed of 80 m.p.h., and can be driven along roads at up to 30 m.p.h. Propelled by a 40-h.p. 4-cylinder engine, it can be kept in the air by a horizontal rotor. In the event of a power failure the free-spinning rotor allows the "Gyrocopter" to float slowly to the ground.

The vehicle only costs the equivalent of about £1,000 and it can be bought in a "do it yourself" kit for about £100 less. Very little space is required for taking-off and landing and the engine, which is very similar to the outboard motors used on boats, can easily be filled with petrol at ordinary filling stations. Mr. Bensen is already interested in the manufacture of a similar craft with an enclosed cabin, two seats, a heater and a radio. The Bensen Aircraft Company, which manufactures the "Gyrocopter," was founded only four years ago, but it is already claimed to be the world's fourth largest manufacturer of rotary-winged aircraft sold in the open market. Mr. Bensen himself did not go to the United States until 1937. After taking a degree there, he worked for General Electric for eleven years and was in charge of that company's helicopter section when it was closed down in 1951.

AIRPORT DEVELOPMENTS IN NEW YORK AND LONDON

A Vast Project to Enlarge Idlewild; and the New Air Terminal for B.E.A.

NEW YORK'S AIRPORT : Construction work is being hurried on at the terminal city of Idlewild. When the project is completed in 1960, it will cover a 655-acre oval in the airport's centre and will include an International Arrival Building and two adjacent airline buildings (at the upper right-hand side of the picture). There will be individual terminal buildings for each of the major United States airlines, a central heating plant, ten miles of roadways, seven miles of tarmac for taxi-ing aircraft, parking space for 6,000 cars and 200 acres of landscape gardens with reflecting pools and fountains. It is estimated that the cost of this gigantic construction will be in the region of 120,000,000 dollars (£43,000,000).

NEW AIR TERMINAL IN LONDON : A tube train passes behind the nearly-completed B.E.A. Air Terminal in Cromwell Road, near Earls Court. It is being erected on a concrete raft above the tracks of the Metropolitan and District lines at the triangle between Earls Court and Gloucester Road. The new terminal will replace the one at Waterloo. It should be completed at about the end of this month.

In New York vast extensions are being made to the already large airport of Idlewild, one of the chief gateways for air travellers to the United States. It is expected that the project will be completed in 1960 at the cost of 120,000,000 dollars (£43,000,000). The International Arrival Building alone will cost 29,000,000 dollars, or about £10,500,000.

In London there are also developments of existing air arrival and departure facilities. The new West London air terminal, which should be completed at about the end of the month, will handle traffic for most airlines other than B.O.A.C. The terminal will have arrival and departure halls on the ground floor and a buffet counter and bar on the upper floor.

PROGRESS IN INDUSTRY AND ENGINEERING—*A Weekly Survey of Achievement in Britain and Overseas*

BRITAIN'S BID FOR NUCLEAR EXPORTS

By "THE SPHERE" INDUSTRIAL CORRESPONDENT

ONLY three countries in the world are at present in a position to export a nuclear reactor. Two are in the west and engaged in ordinary international trade. Of these latter, one—Britain—can offer customers a nuclear power station of a kind that is already working and able to generate electricity at a comparatively reasonable cost. The growing number of British firms engaged in nuclear engineering, therefore, has a real advantage in competing to supply the world market for nuclear power equipment as this market develops.

Few people realise how many British firms are already engaged in nuclear engineering or on the fringe of it. Quite rightly, most attention has been focused upon the "industrial groups," an assortment of civil engineering, boiler-making and heavy electrical engineering companies which were set up under the benevolent patronage of the Atomic Energy Authority in 1954-55, to learn the whole job. These can now offer complete "turnkey" projects for atomic power stations; the blue prints, the construction and supervising of power stations, in the initial stages. Originally, there were four such companies centred around the biggest heavy electrical industries—Associated Electrical Industries, English Electric, the General Electric Company, and C. A. Parsons—and these have secured contracts for the first nuclear power stations to be built for the British electricity system. Since then, a fifth consortium has followed, the electrical engineers concerned being Crompton Parkinson, and the Brush group, now owned by Hawker Siddeley is forming another. With these electrical companies are linked some of the most famous names in British construction and heavy engineering.

There are very few of these major groups of contractors: but a recent and incomplete list of companies concerned with nuclear work ran to about 400. At the Engineering, Welding and Nuclear Energy Exhibition currently being held at Olympia a very large proportion of the thousand or so exhibitors would claim some connection with nuclear engineering. The introduction of this new technology has made widespread and searching demands throughout the British engineering industry over the past decade. So the British stake in nuclear technology is already substantial; and a large number of these equipment suppliers, in addition to the builders of complete nuclear stations, are hoping to secure overseas business.

What is the nature of the export market for nuclear plant to-day, and how does it seem likely to develop? How strong is the competition? Has Britain's early technical decision to "freeze out" on one type of power reactor—not necessarily the most advanced—handicapped British companies in trying to sell plants abroad? These questions are complex, and not yet resolved.

In the first place, it is useful to draw a distinction between reactors for research purposes and reactors to produce practical power—or plutonium plus by-product power. For the former, the market covers every nation with ambitions for a nuclear future and sufficient scientific and financial resources to do something about it. Some thirty of these reactors are already sold or on order for countries as different as Australia and Venezuela. So far, most of these orders have been secured by the United States: it has the most widely assorted range of reactors, and offers ample nuclear fuels for them extremely cheaply. Britain has about half a dozen contracts. There should be more on offer.

For power reactors, the size of the market and the competitive situation are very different. At present, nuclear generation is not a cheap way of making electricity. Until the scientists can give us "fusion power" using the same reaction as the hydrogen bomb, it may never be a very cheap way of making it—by to-day's standards. It cannot compete economically with good hydro-electric schemes, nor even with coal or oil in a country that has either in cheap supply. Examples of these countries are the United States or Middle East oil kingdoms. The kind of nuclear generation best developed to-day offers its chief attractions to countries which use large amounts of power and whose supplies of conventional fuels are likely to fall increasingly short of demand. Britain is one of these countries. Such stations are big and costly to install. They need a highly-developed engineering industry to design and to build them and they need to be used almost twenty-four hours a day, as base-loaded plants can be in an industrial country, in order not to make a financial loss at current power prices.

There are not many countries in the world, outside Western Europe or Japan, with quite the same predicament over fuel as Britain. Many are short of cheap fuel, but not many have a large enough or a steady enough consumption of electricity to make full use of really big power stations such as the C.E.A. is planning to build. Their demand, therefore, is for smaller nuclear units, costing less to build. Until recently, it was believed that their best hopes lay in one or other of the types using "enriched" nuclear fuels that are being developed in the United States. The British reactors being developed along Calder Hall lines appeared to be crude "Model T" types. Even countries in Western Europe, in nearly the same state as Britain, felt it might be worth waiting for refinements.

This situation was not an easy one for British companies learning nuclear technology, building British stations, and hoping to use their hard-bought experience abroad. In the long run it may still happen that one of the several very advanced types of reactor upon which America has lavished far more money and scientists than Britain could afford will scoop the pool with much cheaper power than Britain's current line of reactor development can offer. Nevertheless, over the last two years this has begun to look rather less likely. None of the reactors now under construction in the United States seems likely to achieve anything like the British power costs of about three-farthings a unit.

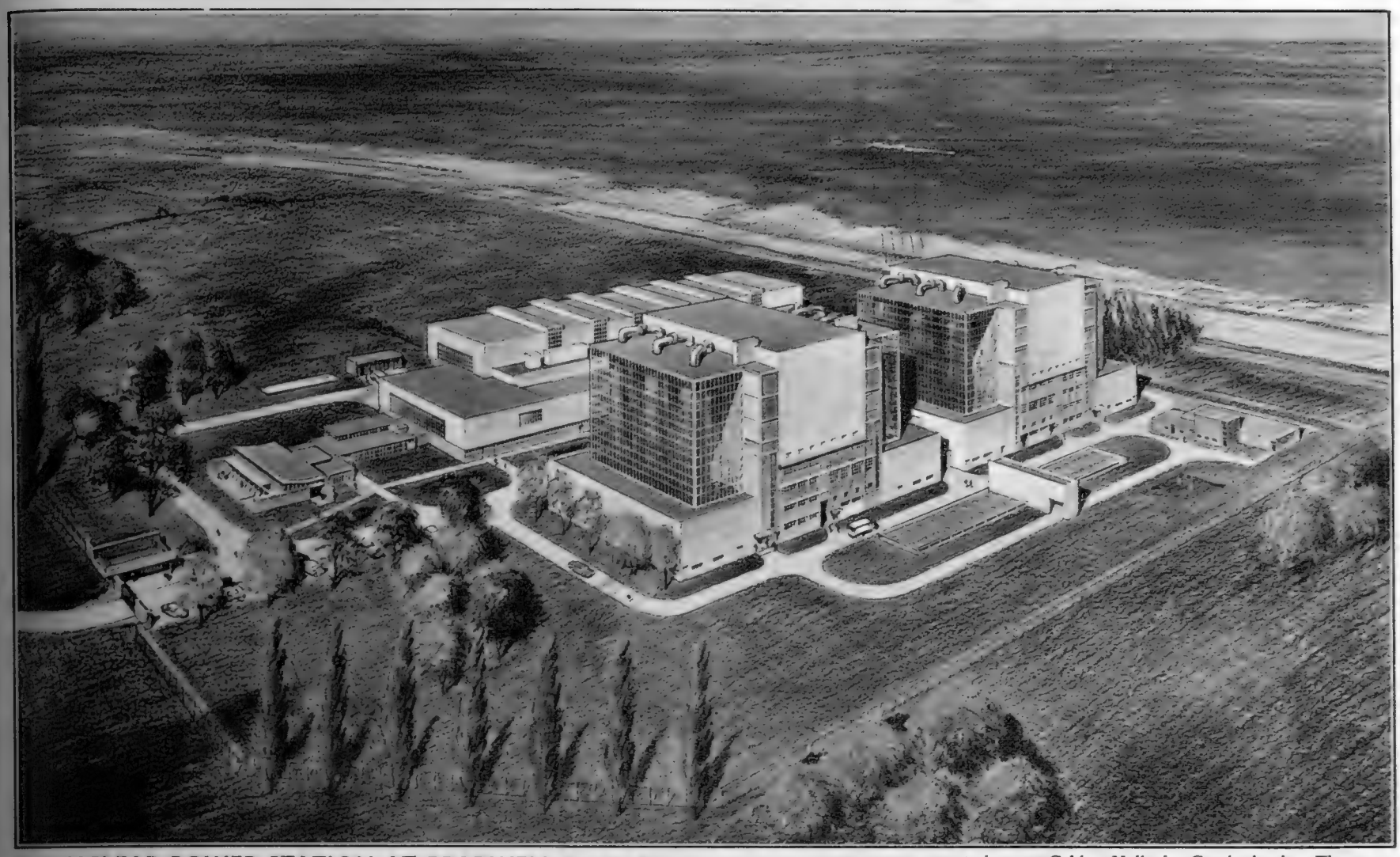
Britain, moreover, now has great hopes of bringing down the capital costs of reactors developed from the Calder Hall succession, and hence the cost of power from them. It is clear that the basic design offers far more scope for refinement and further economies than was originally realised. European customers are hedging their bets. Nevertheless, British companies now have orders for five power reactors overseas. They reckon that by the end of the year they will have orders for some £200,000,000 worth of plant. Most of these are for big reactors. However, a separate line of development is the building of much smaller units, right down to the size of the diesel units employed in the under-developed countries—where present power costs may be three or four times the British price; so that nuclear generation can afford to cost more than would be competitive here or in Europe. Some of the British companies—the new Hawker Siddeley-John Brown group, for example—are concentrating on the development of these smaller reactors, along with another market for reactors of moderate size, nuclear power for marine propulsion.

WORK IN PROGRESS ON THE BRADWELL NUCLEAR POWER STATION: This picture shows the advanced state of construction of the pits for the two reactors of the nuclear power station now being built at Bradwell-on-Sea, in Essex. In the background the liner S.S. *Gothic* can be seen passing off the coast. The station is being constructed for the Central Electricity Authority by the Nuclear Power Plant Company Limited. The work on the site at Bradwell, which covers an area of 140 acres, started at the beginning of the year.

The nuclear submarine already exists in the United States, and Russia claims to be operating a nuclear-powered ice-breaker. Neither is a kind of vessel that needs to be economic, and there is little hope that the nuclear-powered merchant ship now being built in the United States will be a commercial proposition, either.

But it is unlikely that any British or European shipowner will enter this competition for prestige. British owners will want power units able to compete with the excellent steam turbines and diesels they use already. Hawker Siddeley and John Brown are confident that these can be provided. So are another expert group, Babcock and Wilcox and Cammell Laird. Britain's chances in this potential field of nuclear exports—as in the field of nuclear power on land—rest upon offering practical and efficient hardware soon, rather than visionary designs just round the corner.

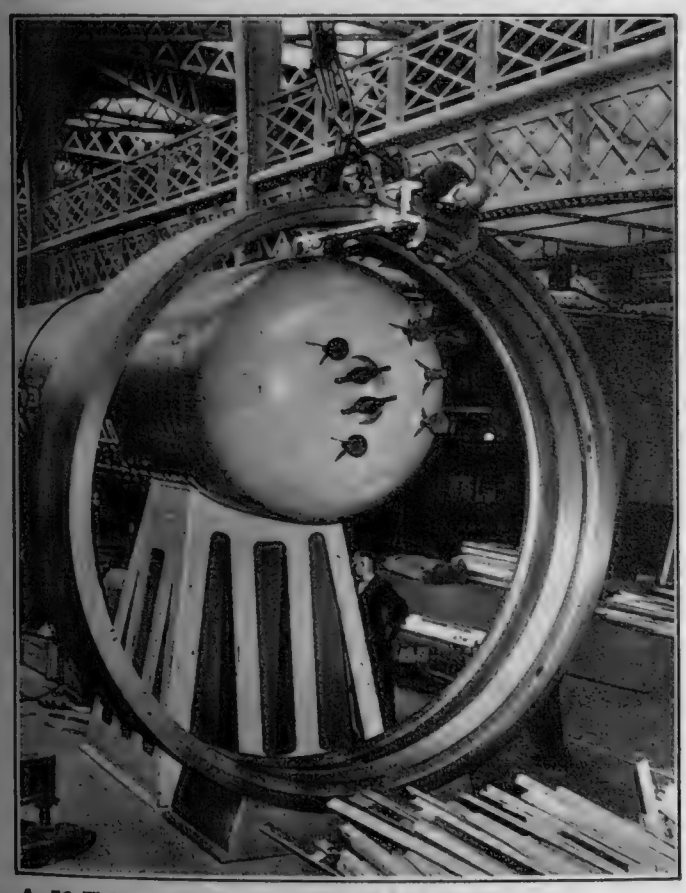
PROGRESS IN INDUSTRY AND ENGINEERING—*A Weekly Survey of Achievement in Britain and Overseas*



A NUCLEAR POWER STATION AT BRADWELL-ON-SEA

This artist's impression, looking north across the Blackwater Estuary, shows how the nuclear power station now in the course of construction at Bradwell-on-Sea, in Essex, is expected to look when completed at the end of 1960. It is being built for the Central Electricity Authority by the Nuclear Power Plant Company Limited, and will have a guaranteed output of 300 megawatts. The two taller buildings in the foreground are the reactors and the four sets of three boilers can be seen through the glass walls. In the background are the buildings which will house the six main 52-megawatt turbo-alternators and ancillary machinery. The administrative quarters will also be housed in this block of buildings. In the foreground is a storage pond in which spent fuel elements will be deposited before being taken away for processing.

The site covers an area of 140 acres and the work there started at the beginning of the year, simultaneously with the power station at Berkeley, in Gloucestershire. The latter station is similar, but of a slightly lower capacity. The reactors at Bradwell (and Berkeley) are of the same type as those at the power station at Calder Hall, in Cumberland. They are graphite-moderated and gas-cooled and use natural uranium as fuel. Unlike Calder Hall, however, the primary purpose of which is the production of plutonium with electricity as an important by-product, the reactors at Bradwell have been designed for maximum output of electricity. Each reactor will contain 232 tons of uranium and 1,880 tons of graphite. The core will measure 31 ft. in height and 45 ft. in width, with 2,837 vertical channels containing the fuel elements and control rods. It is contained in a spherical steel shell or pressure vessel which, in turn, will be surrounded by a biological shield of concrete 10 ft. thick.



A 50-TON HIGH-PRESSURE BOILER

The second largest exhibit to be seen at the Engineering, Marine Welding and Nuclear Energy Exhibition, being currently held at Olympia, is this 50-ton high-pressure boiler which is on the stand of Thomas Firth and John Brown Limited, of Sheffield. The immense size of the boiler can be gauged by comparing it with the workmen engaged in putting a 12-ton forged steel gear-wheel ring into position in the Grand Hall. After the Exhibition, which continues at Olympia until September 12, the high-pressure boiler is being shipped to Australia for installation in a power house.

JET-NOISE TESTS AT LONDON AIRPORT

Technicians are checking the final details on one of the Cullum mobile mufflers which has been fitted to the engines of a Comet II aircraft for trials to test the effects of mufflers on Avon jet engines which are to be installed in the Comet IV aircraft. The trials, which took place at London Airport last week, were undertaken on behalf of the Ministry of Transport and Civil Aviation. The engines of the Comet II were running for a number of hours while observers in surrounding areas made records of the noise levels. The muffler pipes, about 50 ft. long and mounted on wheels, were placed to receive part of the exhaust gases, which were baffled and expanded before emerging through a wide funnel pointed towards the sky. Spectators could at times hear above the noise the sounds of other aircraft ascending and alighting at a distance, but the thunder of a storm raging a few miles away could not be heard.

TESTS ON A BRITISH VERTIJET

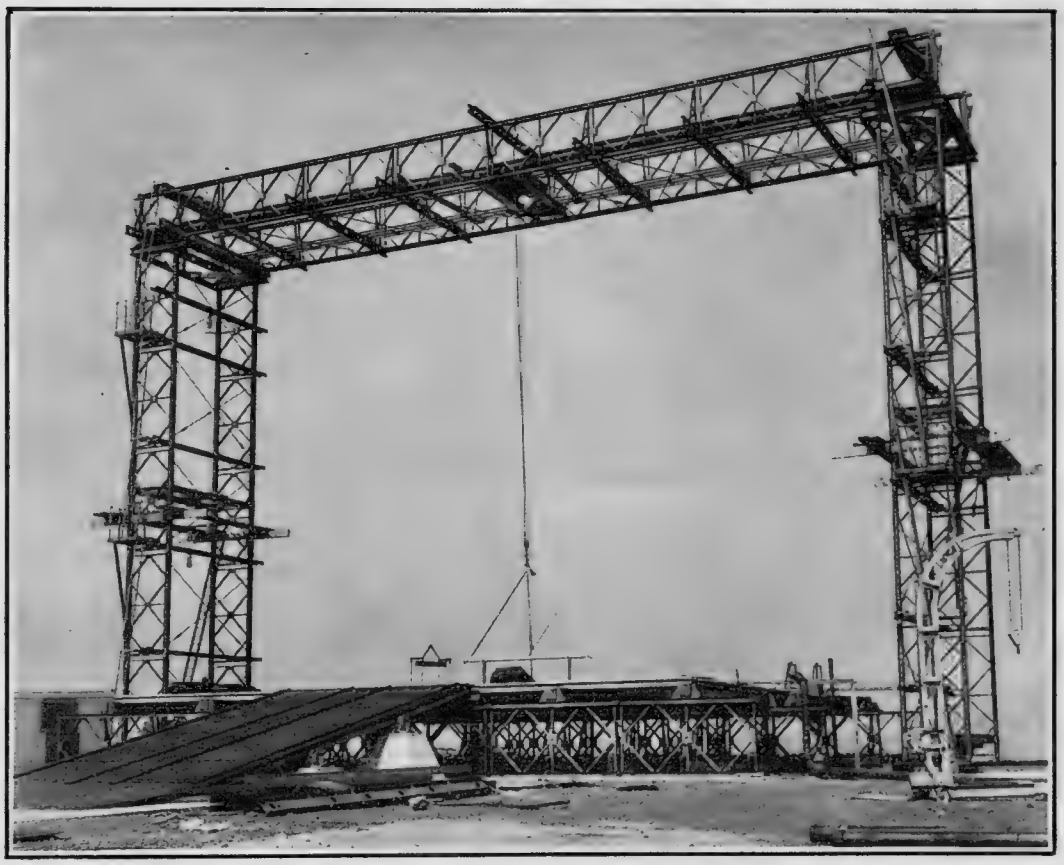
Last week an American vertijet, the Ryan X 13, was described in THE SPHERE. On this page are pictures of a similar British jet, the Short SC. 1, which is now in its experimental stages. The aircraft, which is designed to be a vertical take-off and landing plane, was first successfully piloted in conventional flight at Boscombe Down, Wiltshire, last April. Very soon it will undergo hovering tests tethered in a gantry in Belfast. About six months after that, it is expected that the plane will take off in free vertical flight and then convert to level flight.

The plane, built by Short Brothers and Harland under contract to the Ministry of Supply, is powered by five Rolls-Royce RB. 108 jet engines. It is 24 ft. 5 ins. long and has a wing-span of 23 ft. 6 ins.

It was first seen on the tarmac for taxi-ing trials last December, only a year after the project had been announced by the manufacturers. Although the aircraft has been successfully and rapidly developed so far, the chairman of Short's, Rear-Admiral Sir Matthew Slattery, said at a Press conference that the research on it was being carried out on a " shoe-string " budget.

The gantry in which it will undergo hovering tests is similar to that used for the Rolls-Royce " Flying Bedstead " vertical take-off thrust measuring rig. It differs only in that it is built of Bailey Bridge components, whereas the " Bedstead's " rig was a conventional steel framework. The gantry consists of two upright towers which are 70 ft. apart with a cross-girder assembly over them.

A REVOLUTIONARY BRITISH JET PLANE : The Short SC. 1 vertical take-off and landing research plane stands in front of a wind tunnel at Boscombe Down, Wiltshire, after conventional flight trials. The next stage in its development will be hovering trials in a test gantry in Belfast. Later the plane will take off vertically and then will be able to transfer to horizontal flight.



TEST PILOT AND TEST APPARATUS : Tom Brooke-Smith, Short's chief test pilot, sits above the cockpit of the SC. 1. *On left*—It will be tethered in this huge framework to undergo hovering tests at Short Brothers and Harland, Belfast.

A SIDE VIEW OF THE JET : The aircraft waits for its pilot on a runway. The unusual protuberance on its nose contains an air-speed indicator, a storm warning device and other instruments. The plane is powered by five Rolls-Royce RB. 108 jet engines.

THE NEW PLANE FROM THE FRONT : The wing-span of the delta-shaped wings is 23 ft. 6 ins., and its overall length is 24 ft. 5 ins. The plane has been designed and built under contract from the Ministry of Supply on a " shoe-string " budget, it was stated.

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The Chief Constable searched

. . . his pockets, then accepted my cigarette. "Expensive?" he asked. "More than worth a little extra" I told him. *You will agree.*

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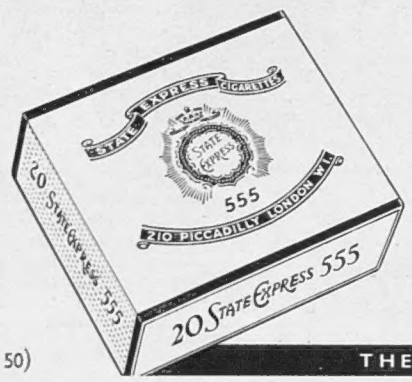

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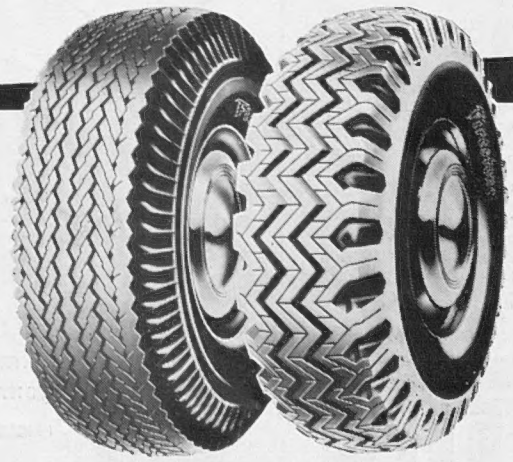

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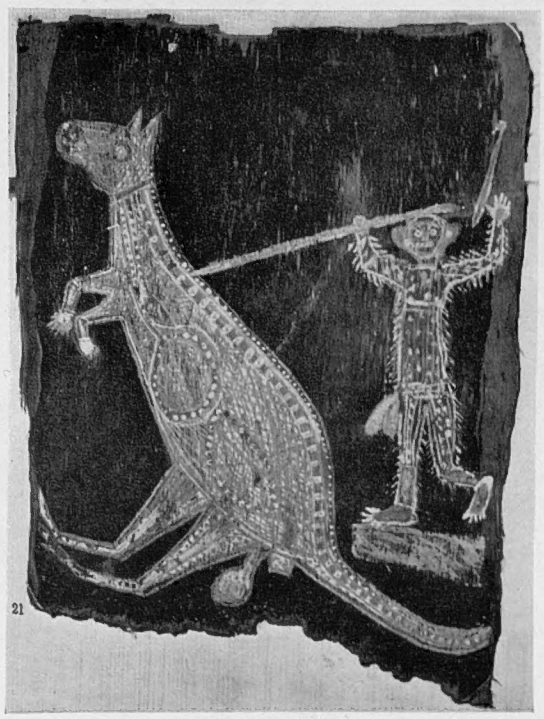
ABORIGINAL ART

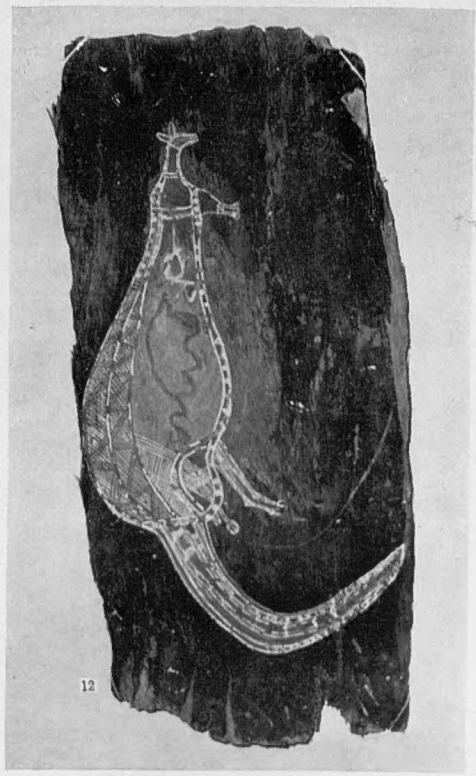
An Exhibition in London of Primitive Paintings from Australia

AN ANTHROPOLOGIST AND HIS EXHIBITS : At the Institute of Contemporary Arts, in London, Mr. Charles Mountford, the Australian anthropologist, hangs an aboriginal bark painting for the current exhibition at the gallery. Mr. Mountford collected the exhibits from aboriginal settlements in Northern Australia.

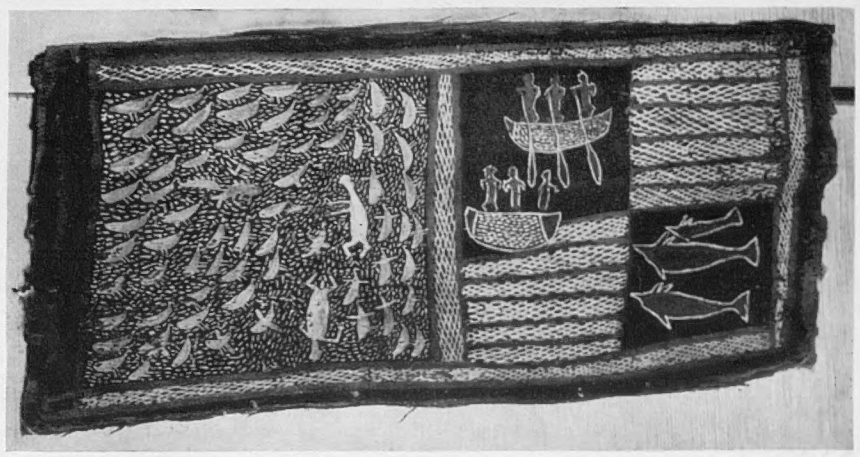
The current exhibition at the Institute of Contemporary Arts, which closes next Saturday (September 14), is said to be the most comprehensive exhibition of aboriginal paintings on bark ever to leave Australia. The thirty-eight exhibits were collected over many years by Mr. Charles Mountford, O.B.E., the Australian anthropologist, and they are now permanently housed in the South Australian Museum at Adelaide. They make a fascinating display of the mentality of the primitive people who inhabit Arnhem Land and Melville Island, in the north of Australia. Especially interesting is the manner in which the artists "X-ray" their subjects in true infant style.



"GRADUA AND KANGAROO" : The hirsute but harmless Spirit Man, Gradua, plunges his spear into a kangaroo in this painting from Western Arnhem Land.

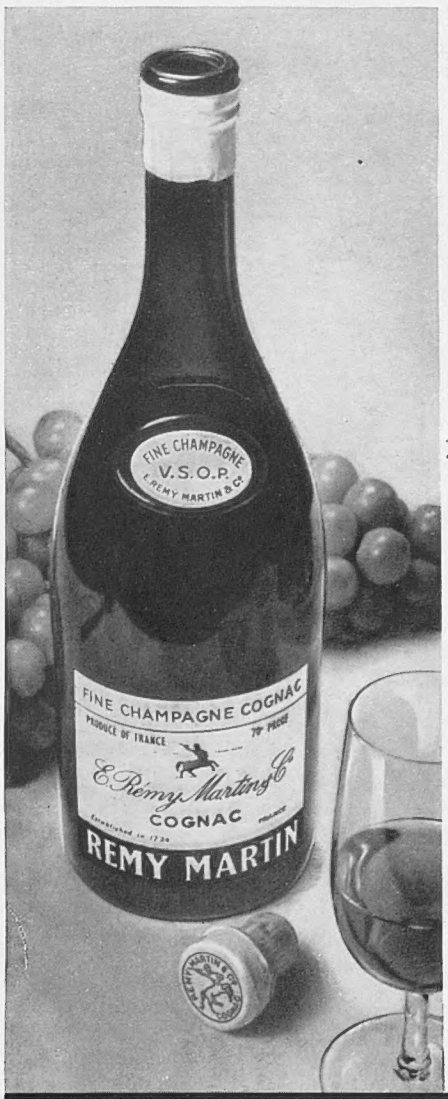


A PRIMITIVE "X-RAY" PAINTING : The aborigine artist has depicted not only the exterior of the animal but also painted the interior of its belly, in the "X-ray" style of drawing common among very young children.



On left—

"SEAGULL ISLAND" : In the left-hand panel the birds sit on their nests. On the right is the sea. The canoes are filled with eggs collected by their crews. Fish swim in the water and the cross-hatching represents dangerous currents.



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ILLUSTRATED BY JOHN BERRY

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